



Service Manual

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Nakamichi LX-3

2 Head Cassette Deck



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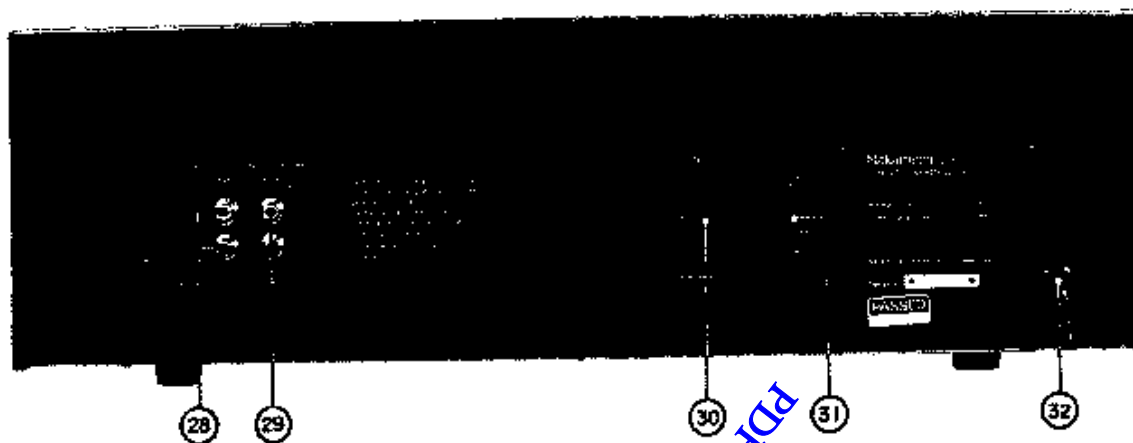


Fig. 1.3 Rear View

- 28. Input Jacks
- 29. Output Jacks
- 30. Remote Control Jack

- 31. Voltage Selector
- 32. Power Cord

1.2. Voltage Selector

Voltage selector is installed on the rear panel for Other Version of the Nakamichi LX-3. This voltage selector can select either 120 V or 220-240 V at customer's disposal.

- (4) Remove F13 and F14, then disassemble F15 (Main P.C.B. Assy and Amp. Switch P.C.B. Assy).
- (5) Remove F16, F17 and F18, then disassemble F19 (Main P.C.B. Assy).
- (6) Remove F20, F21 and F22, then disassemble F23 (Amp. Switch P.C.B. Assy).

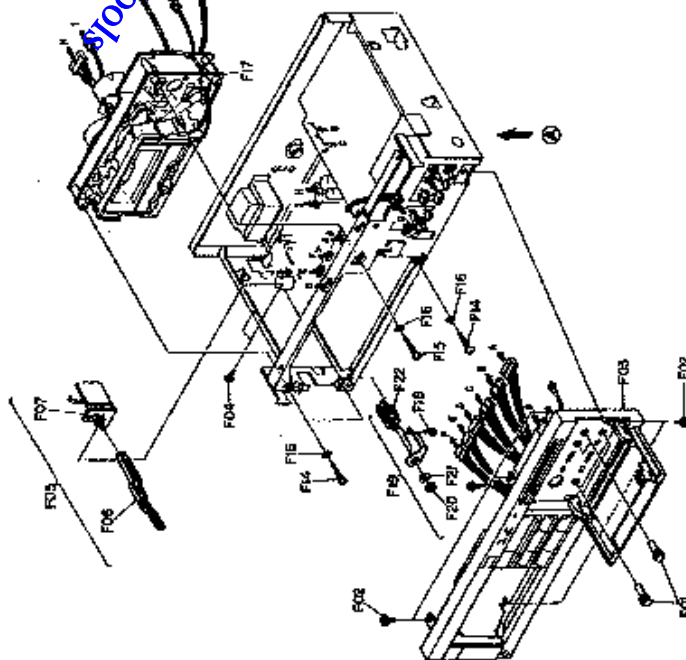


Fig. 2.2

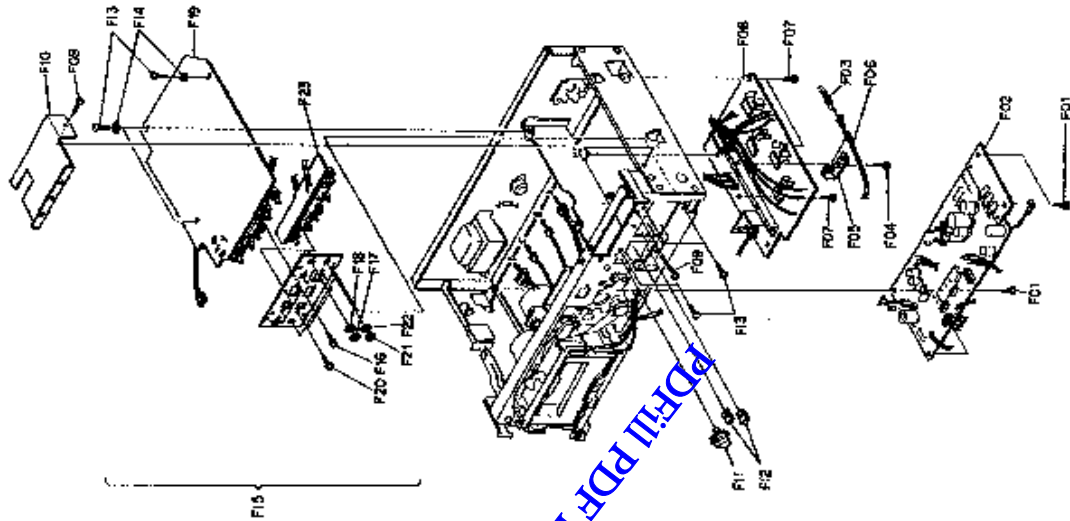
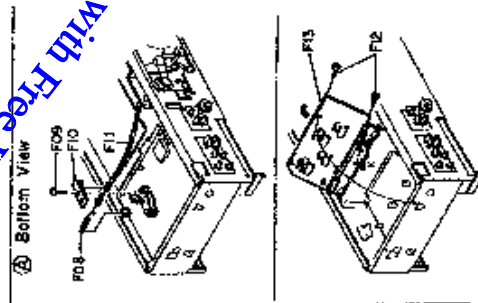


Fig. 2.3

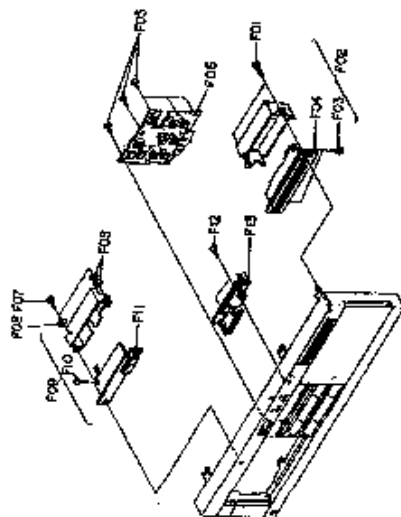


Fig. 2.4

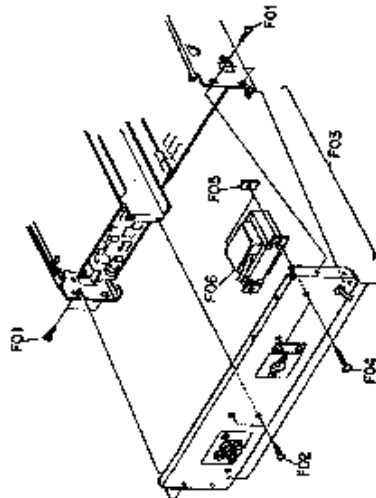


Fig. 2.5

- 2.12. LED Level Indicator Assy, Control Switch P.C.B. Assy, Counter P.C.B. Assy and LED P.C.B. Assy
Refer to Fig. 2.4.
- (1) Refer to Fig. 2.2. Remove Front Panel Assy referring to Item 2.4.
 - (2) Remove F01, then disassemble F02 (LED Level Indicator Assy).
 - (3) Remove F03, then disassemble F04 (Indicator P.C.B. Assy).
 - (4) Remove F05, then disassemble F06 (Control Switch P.C.B. Assy).
 - (5) Remove F07 and F08, then disassemble F09 (Counter P.C.B. Assy).
 - (6) Remove F10, then disassemble F11 (Counter P.C.B. Assy and Counter-2 P.C.B. Assy).
 - (7) Remove F12, then disassemble F13 (LED P.C.B. Assy).

Blue Panel Assy

- Refer to Fig. 2.5.
- (1) Refer to Fig. 2.1. Remove Top Cover Assy and Bottom Cover Assy referring to Items 2.1 and 2.2.
 - (2) Remove F01 and F02, then disassemble F03 (Rear Panel Assy).

- 2.12. Power Transformer
Refer to Fig. 2.5.
- (1) Refer to Fig. 2.1. Remove Top Cover Assy and Bottom Cover Assy referring to Items 2.1 and 2.2.
 - (2) Remove F04 and F05, then disassemble F06 (Power Transformer).

- 2.13. Cassette Case Assy and Cover Plate Assy
Refer to Fig. 2.6.
- (1) Refer to Fig. 2.2. Remove Mechanism Assy referring to Item 2.5.
 - (2) Remove F01, then disassemble F02 (Cassette Case Plate Assy).
 - (3) Remove F03 (Cassette Case Lamp) from Cassette Case Plate, then pull out F04 (Lamp P.C.B.) from F05 (Cassette Case Assy).
 - (4) Push the Eject Button to open the Cassette Case Assy.
 - (5) Remove F06 and F07, then disassemble F08 (Cassette Case Holder L Assy) by releasing the self-locking pin of Damper Lock Arm and F09 (Cassette Case Assy).
 - (6) Remove F09, then disassemble F10 (Cover Plate Assy).

- 2.14. Cassette Motor Assy and Flywheel Assy
Refer to Fig. 2.7.
- (1) Refer to Fig. 2.2. Remove Mechanism Assy referring to Item 2.5.
 - (2) Remove F01, F02 and F03, then disassemble F04 (Flywheel Holder Assy) and F05 (Capstan Belt).
 - (3) Remove F06, then disassemble F07 (Capstan Motor Assy).
 - (4) Remove F08, then disassemble F09 (3P Lug Terminal).
 - (5) Remove F10 (Supply Flywheel Assy), then disassemble F11 (Take-up Flywheel Assy).
 - (6) After removing both Flywheel Assemblies, disassemble F12 (Thrust Washer Shim), F13 (Thrust Washer 2.8mm), F14 (Flange Thrust Cap) and F15 (Flange Thrust Spring).

- 2.15. Sub Mechanism Chassis Assy
Refer to Fig. 2.8.
- (1) Refer to Fig. 2.7. Remove Flywheel Holder Assy referring to Item 2.14.
 - (2) Remove F01, F02 and F03, then disassemble F04 (Sub Mechanism Chassis Assy).

- 2.16. Control Motor Assy and Reed Motor Assy
Refer to Fig. 2.8.
- (1) Remove Sub Mechanism Chassis Assy referring to Item 2.15.
 - (2) Remove F05, then disassemble F06 (Control Motor Assy).
 - (3) Remove F07, then disassemble F08 (Reed Motor Assy).

- 2.17. Case Control Volume
Refer to Fig. 2.8.

- (1) Remove Sub Mechanism Chassis Assy referring to Item 2.15.

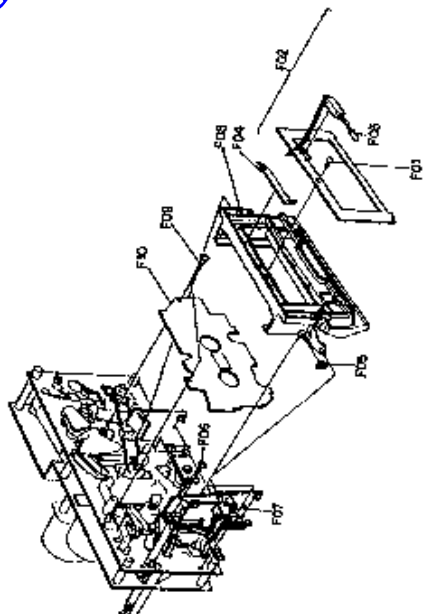


Fig. 2.6

- (2) Remove F09, then disassemble F10 (Volume Coupler).
- (3) Remove F11 and F12, then disassemble F13 (Cam Control Volume).

2.18. Reel Hub Ass'y and Idler Ass'y

Refer to Fig. 2.8.

- (1) Remove Sub Mechanism Chassis Ass'y referring to item 2.15.
- (2) Remove F14 (Reel Hub Head), then disassemble F15 (Reel Hub B Ass'y), F16 (Reel Hub Take-up Ass'y), F17 (Reel Hub Supply Ass'y), F18 (Back Tension Ass'y) and F19 (Back Tension Spring).
- (3) Remove F20, then disassemble F21 (Idler Ass'y).

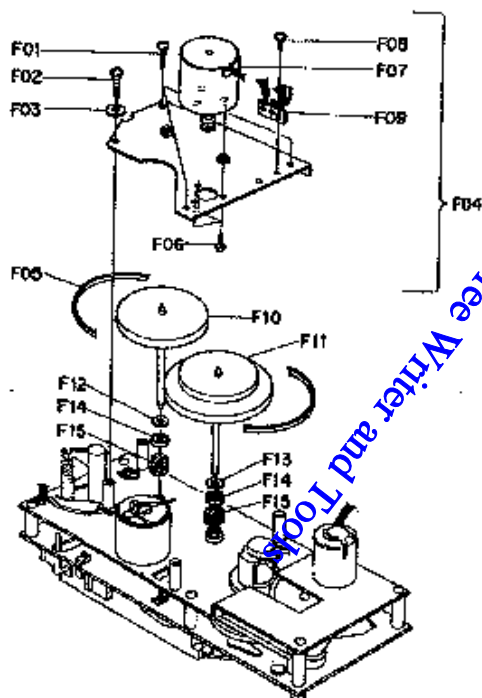


Fig. 2.7

2.19. Cam Drive Gear and Control Cam

Refer to Fig. 2.8.

- (1) Remove Sub Mechanism Chassis Ass'y referring to item 2.15.
- (2) Remove F22, then disassemble F23 (Cam Drive Gear).
- (3) Remove F24, then disassemble F25 (Counter-Load Arm Ass'y).
- (4) Remove F26, then disassemble F27 (Control Cam).

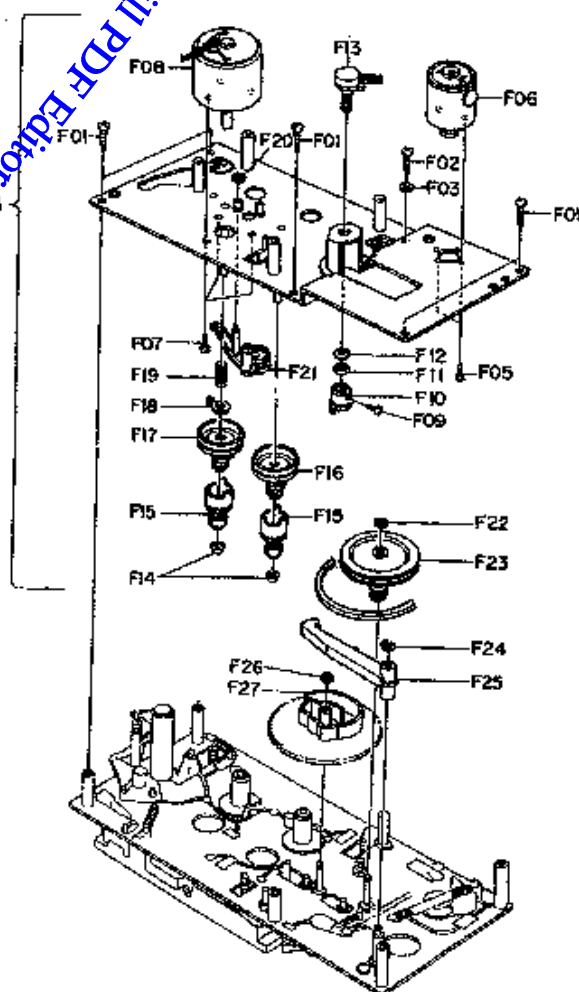


Fig. 2.8

2.20. Head Mount Base Ass'y

Refer to Fig. 2.9.

- (1) Refer to Fig. 2.8. Remove Cassette Case Ass'y referring to item 2.13.
- (2) Remove F01, then disassemble F02 (Head Mount Base Ass'y).

2.21. Erase Head, Pressure Roller and Tape Guide

Refer to Fig. 2.9.

- (1) Remove Head Mount Base Ass'y referring to item 2.20.
- (2) Remove F03, then disassemble F04 (Erase Head).
- (3) Remove F05, then disassemble F06 (Supply Pressure Roller).
- (4) Remove F07, then disassemble F08 (Supply Tape Guide).
- (5) Remove F09, then disassemble F10 (Take-up Pressure Roller).
- (6) Remove F11, then disassemble F12 (Take-up Tape Guide).

2.22. Record/Playback Head Ass'y

Refer to Fig. 2.9.

- (1) Remove Head Mount Base Ass'y referring to item 2.20.
- (2) Turn F13 by 90° by pushing it, then disassemble F14 (Record/Playback Head Ass'y).

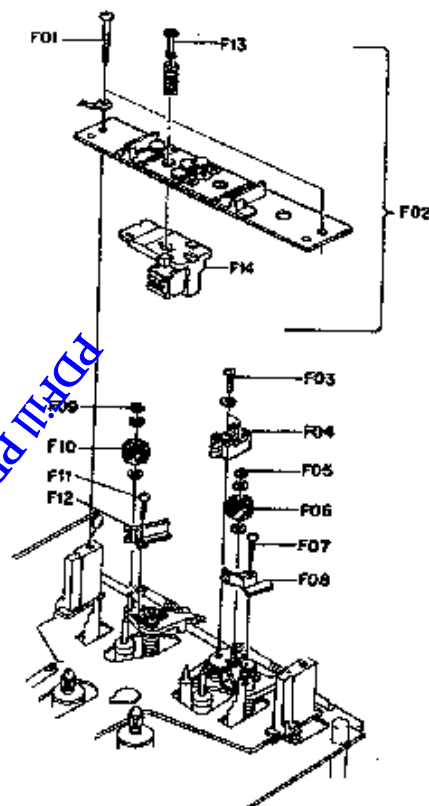


Fig. 2.9

3. MEASUREMENT INSTRUMENTS

- (1) Audio Generator (20 Hz - 200 kHz)
- (2) AC Millivolt Meter (with dB measures)
- (3) Oscilloscope (DC - 5 MHz)
- (4) Distortion Meter
- (5) Speed & Wow/Flutter Meter
- (6) Frequency Counter (DC - 1 MHz)
- (7) Ohm Meter
- (8) DC Volt Meter
- (9) AC Volt Meter
- (10) Torque Gauge (DA09013A)
- (11) 15 kHz Azimuth Tape (DA09004A)
- (12) 3 kHz Speed & Wow/Flutter Tape (DA09006A)
- (13) 1 kHz Track Alignment Tape (DA09007A)
- (14) 400 Hz Level Tape (DA09005A)
- (15) 20 kHz PB Frequency Response Tape (DA09001A)
- (16) 15 kHz PB Frequency Response Tape (DA09002A)
- (17) 10 kHz PB Frequency Response Tape (DA09003A)
- (18) Reference EXII Tape (DA09068A)
- (19) Reference SX Tape (DA09025A)
- (20) Reference ZX Tape (DA09037A)
- (21) Tilt Check Gauge M-9036 (DA09036A)
- (22) Stroke Check Gauge M-9038 (DA09038A)
- (23) EH Tilt Check Gauge M-9040 (DA09040A)
- (24) EH Stroke Check Gauge M-9051 (DA09051A)
- (25) Back Tension Gauge (DA09055A)
- (26) Tension Arm Adjustment Cassette (DA09056A)
- (27) Audio Analyzer T-100
(including Distortion, Wow/Flutter, Speed, Oscillator and dB meters)

Note: (10) - (27) are the products of Nakamichi Corporation.

4. MECHANICAL ADJUSTMENTS

4.1. Mechanism Control Cam Adjustment

Before adjustment, disassemble the Front Panel Ass'y then remove the Cover Plate Ass'y referring to items 2.4 and 2.13.

(1) Offset Adjustment of Control Motor Driver

(a) Refer to Figs. 4.1 and 4.2.

Adjust VR602 and VR603 on the Logic & Power P.C.B. Ass'y to locate approximately at the middle of the variable range. Then turn ON the Power switch.

VR602 (for cam position stop)

VR603 (for cam position play)

(b) Press the Stop button to set the LX-3 in Stop mode. Adjust VR602 (for stop) so that the "S" mark on the Cam corresponds to the pointer on the mechanism chassis.

(c) Press the Play button to set the LX-3 in Playback mode.

(Cam will rotate, and the position marked with "PY" comes to the pointer.)

Adjust VR603 (for play) so that the "PY" mark on the Cam corresponds to the pointer.

(d) Repeat above (b) and (c) 2 - 3 times so that the "S" and "PY" marks on the Cam correspond to the pointer accurately in Stop and Playback modes respectively.

(This adjustment is required because the position adjusted by one volume will be slightly changed when the other volume is adjusted.)

(e) Set the LX-3 in F.F., Pause, or Record mode by pressing each button and check to insure that the pointer is in a range of "F", "PS", or "R" mark respectively.

(f) If out of the range, precise adjustment for each position according to "(2) Offset Fine Adjustment of Control Motor Driver" will be required.

(2) Offset Fine Adjustment of Control Motor Driver

Adjust only if a satisfactory result is not obtained in "(1) Offset Adjustment of Control Motor Driver". This adjustment is made by changing the value of the fixed resistors on the Logic & Power P.C.B. Ass'y.

Note: The value of voltage is typical value.

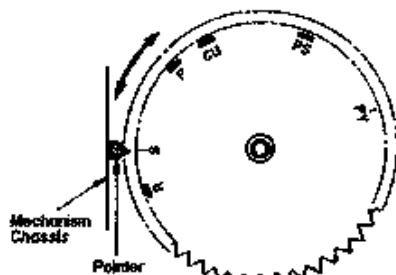


Fig. 4.1

(a) Observation Point of Reference Voltage

Observe the each voltage at the sliding contact of the Cam Control Volume VR604 (10 kΩ) in Stop, Fast (F.F. or Rew.), Pause, Record and Playback modes.

Note: When Record and Play buttons are pressed to set the LX-3 in Record mode, the Cam is first set to the record position in a short period of time then stays at the play position. Therefore to keep the Cam at the record position, following procedure is required: Short both leads of capacitor C804 (4.7 μF) on the Logic & Power P.C.B. with a jumper wire, then press the Record and Play buttons.

(b) Reference Voltage

Reference voltage at the sliding contact of VR604 (Cam Control Volume) in each mode is as follows:

Mode	Reference Voltage (Typical Value)
Record	1.8 V
Stop	0 V
Fast (F.F./Rew.)	-2.0 V
Pause	-6.5 V
Play	-9.1 V

(c) Resistors for Adjustment

Mode	Ref. No.	Typical Value
Fast (F.F./Rew.)	R647	22 kΩ
Pause	R649	76.8 kΩ (F)
Play	R648	10 kΩ

(d) Adjustment Procedures

1) Set the LX-3 in Stop mode, then check to insure that the voltage at the sliding contact of VR604 is 0 V (±0.3 V).

2) Set the LX-3 in F.F. mode, then adjust the value of R647 so that the voltage at the sliding contact of VR604 will become lower by 2.0 V (±0.25 V) than in Stop mode.

3) Press the Pause button to set the LX-3 in Pause mode.

Adjust the value of R649 to obtain -6.5 V (±0.4, -0.15 V) at the sliding contact of VR604.

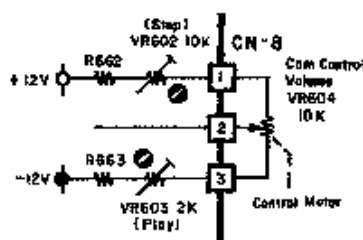


Fig. 4.2

LX-3

- 4) Set the LX-3 in Playback mode, then adjust the value of R648 so that the voltage at the sliding contact of VR604 will become lower by 2.6 V (± 0.4 V) than in Pause mode.

- 5) Short both leads of capacitor C804 with a jumper wire.

Set the LX-3 in Record mode, then check to insure that the voltage at the sliding contact of VR604 is higher by 1.8 V (± 0.3 V) than in Stop mode.

Note: Remove the short of C804 after completion of adjustment.

4.2. Real Motor Speed Adjustment in Play Mode

Refer to Fig. 4.3.

- (1) Connect a DC voltmeter to TP1 and GND on the Logic & Power P.C.B. Ass'y.
- (2) Without loading a cassette tape, set the LX-3 in Play mode.
- (3) Adjust VR601 on the Logic & Power P.C.B. Ass'y to obtain -4 V on the DC voltmeter.

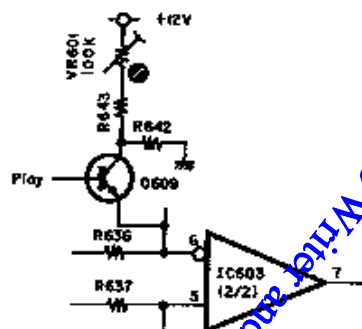


Fig. 4.3

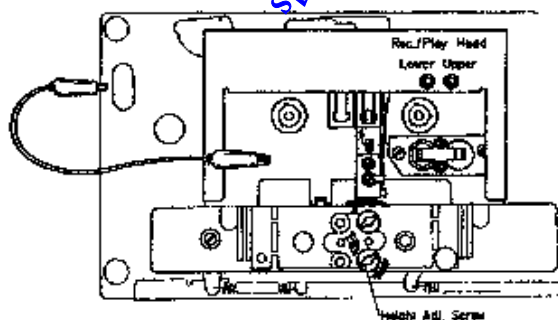


Fig. 4.4

4.3. Record/Playback Head Tilt Adjustment

Note: On Items 4.3 - 4.8, refer to Fig. 4.4 flow chart. Refer to Figs. 4.5 and 4.6.

- (1) Load a Tilt Check Gauge M-8036 (DA09036A) in the LX-3.
- (2) Clip the grounding terminal of the Tilt Check Gauge with one end of the cord with clip, and the chassis of the LX-3 with the other end.
- (3) Remove the Height Gear.
- (4) Set the LX-3 in Play mode. Check to insure whether the Beacon "Upper" or "Lower" is illuminating. In order not to give damages onto the record/playback head surface, push the slide knob of the Gauge to the direction of an arrow mark, then return it to the original place to be in contact with record/playback head surface after Play mode is securely locked.
- (5) Check to insure freedom from contact between the Gauge and pad lifter.
- (6) Beacon "Lower" will light on when height adjustment screw turned clockwise but "Upper" when counterclockwise. Adjust so that both "Upper" and "Lower" will light on even when you move the slide knob to the direction of an arrow mark and then return it to the original place.
- (7) Set the LX-3 in Stop mode and fit the serrated Height Gear. Then set the LX-3 again in Play mode and insure 2 Beacons "Upper" and "Lower" are illuminating.

If not, (3) through (6) will have to be repeated till satisfactory results are obtained.

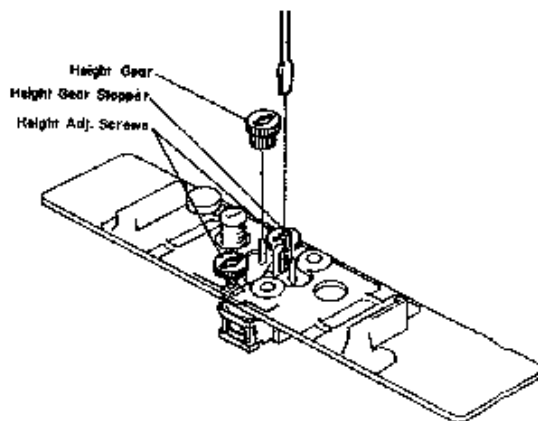


Fig. 4.5

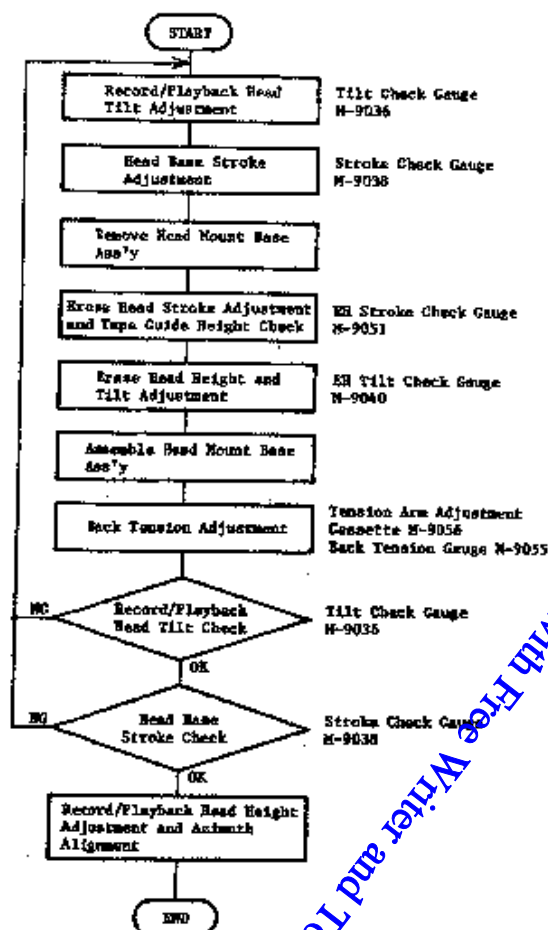


Fig. 4.6

4.4. Head Base Stroke Adjustment

Refer to Fig. 4.7.

Note: Before you conduct "Head Base Stroke Adjustment", adjust with a "Tilt Check Gauge" to insure freedom from tilt on the record/playback head.

- (1) Load a Stroke Check Gauge M-9038 (DA09038A) in the LX-3.
- (2) Set the LX-3 in Play mode.
- (3) Check to insure whether the "P" pointer on the Stroke Indicator locates between 2 lines as marked on the Stroke Check Plate.
- (4) If the record/playback head stroke is noted to be misaligned, adjustment can be made by moving the stroke adjuster assembled in the head base assembly (either forwardly or backwardly).

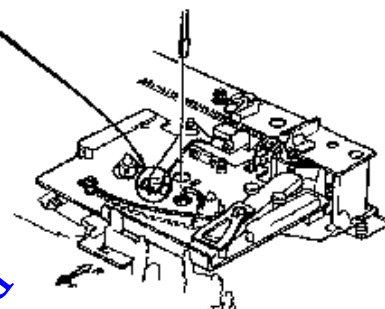


Fig. 4.7

4.5. Erase Head Stroke Adjustment and Tape Guide Height Check

Remove Head Mount Base Ass'y referring to item 2.20. Refer to Figs. 4.8 and 4.9.

(1) Erase Head Stroke Adjustment

- (a) Load an EH Stroke Check Gauge M-9051 (DA0-9051A) in the LX-3.
- (b) Set the LX-3 in Play mode, thus check can be made on erase head stroke through the EH Stroke Indicator.
- (c) Check to insure whether the erase head surface is aligned with red line on the EH Stroke Indicator. If not, adjust the erase head stroke by loosening 2 screws A that assemble erase head and erase head plate.
- (d) After completion of adjustment, 2 pcs. of screws shall be locked with lock tight paint.

(2) Supply Tape Guide Height Check

- (a) Load an EH Stroke Check Gauge M-9051 (DA0-9051A) in the LX-3.
- (b) Set the LX-3 in Play mode.
- (c) Slide the Supply Tape Guide Check Bar down against the supply tape guide, and check to insure that the Supply Tape Guide Check Bar is accepted by the supply tape guide.

(3) Take-up Tape Guide Height Check

- (a) Load an EH Stroke Check Gauge M-9051 (DA0-9051A) in the LX-3.
- (b) Set the LX-3 in Play mode.
- (c) Slide the Take-up Tape Guide Check Bar down against the take-up tape guide, and check to insure that the Take-up Tape Guide Check Bar is accepted by the take-up tape guide.

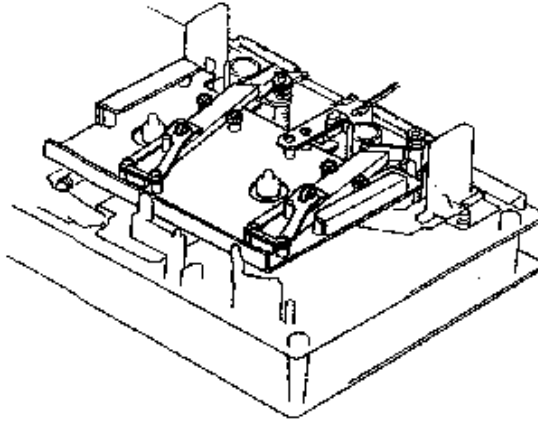


Fig. 4.8

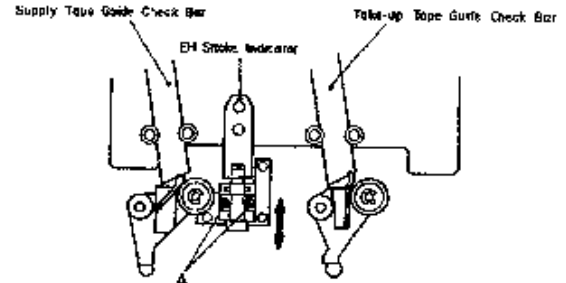


Fig. 4.9

4.8. Erase Head Height and Tilt Adjustment

Refer to Figs. 4.10 and 4.11.

- (1) Remove Head Mount Base Ass'y referring to item 2.20.
- (2) Load an EH Tilt Check Gauge M-8040 (DA090404) in the LX-3.
- (3) Set the LX-3 in Stop mode.
- (4) Check to insure whether one of the 3 Beacons is illuminating. Look down the mirror as shown by an arrow mark and slowly turn the Screw "Height" counterclockwise (or clockwise) so that the two horizontal lines on the mirror will become superposed on the line (in different color) of the erase head, and check to insure whether Beacon "1" is illuminating.
- (5) Turn Screw "Tilt" counterclockwise (or clockwise) to light on Beacon "2". Excessive turning will cause the Beacon "1" to light off. Adjustments of Screw "Tilt" will therefore be conducted till both of the Beacons "1" and "2" illuminate.
- (6) Turn Screw "Azimuth" counterclockwise (or clockwise) to light on Beacon "3". Excessive turning will cause either Beacon "1" or "2" to light off, and therefore adjust Screw "Azimuth" until all of the 3 Beacons "1", "2" and "3" illuminate.
- (7) Check to insure whether the horizontal line on the mirror corresponds to that on the erase head. If not, (4) through (7) will have to be repeated till satisfactory results are obtained.
- (8) After completion of adjustment, 3 pcs. of screws shall be locked with lock tight paint.

Note: Before use of this gauge, check to insure freedom from dust or dirt, or overflow in the groove of the erase head surface.

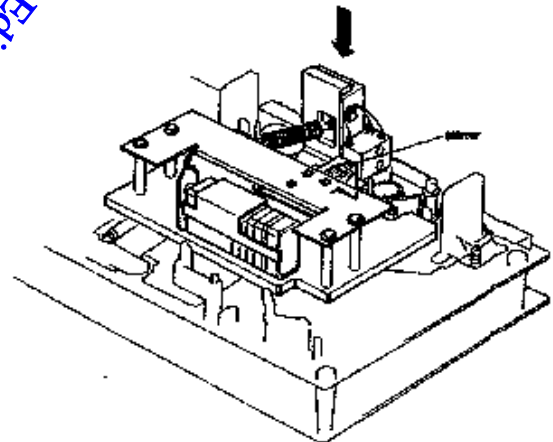


Fig. 4.10

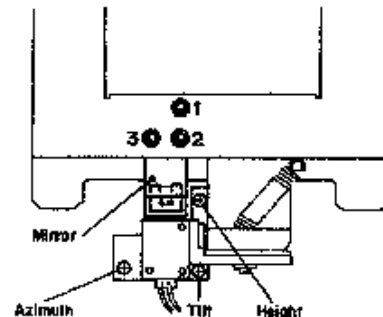


Fig. 4.11

4.7. Back Tension Adjustment

Refer to Figs. 4.12 – 4.14.

- (1) Load a Tension Arm Adjustment Cassette (DA09058A) in the LX-3 referring to Fig. 4.12.
- (2) Set the LX-3 in Play mode.
- (3) Bend the Back Tension Arm with pliers so that the gap between the Cassette Holding Spring assembled on the Head Base Assy and the Back Tension Arm becomes 0.5 mm as shown in Fig. 4.13. Do not bend the top of the Back Tension Arm.
- (4) Load the Back Tension Gauge (DA09055A) in the LX-3.
- (5) Set the LX-3 in Play mode and read the torque value of Back Tension Gauge.
If the value is in a range of 6 g-cm to 10 g-cm, adjustment is not necessary. If not, change the installation point of the Back Tension Spring as shown in Fig. 4.14, and obtain the torque of 7 g-cm to 9 g-cm range.

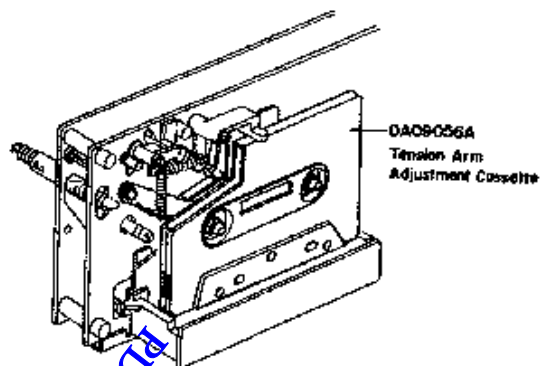


Fig. 4.12

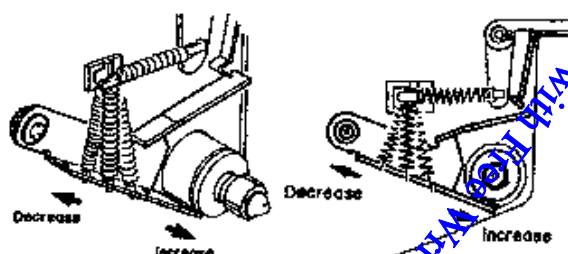


Fig. 4.14

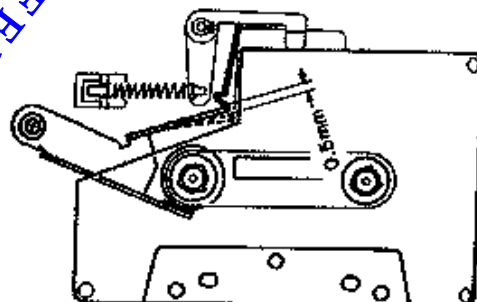


Fig. 4.13

4.8. Record/Playback Head Height Adjustment and Azimuth Alignment

Refer to Fig. 4.15.

- (1) Connect a VTVM to the Output Jacks.
- (2) Load a 1 kHz Track Alignment Tape (DA09007A) in the LX-3.
- (3) Set the LX-3 in Play mode.
- (4) Turn the Height Gear until the outputs of both channels become minimum.
- (5) Load a 15 kHz Azimuth Tape (DA09004A) in the LX-3.
- (6) Set the LX-3 in Play mode.
- (7) Turn the Azimuth Alignment Screw until the outputs of both channels become maximum.
- (8) Repeat (2) through (7) one or two times to obtain optimum performance.

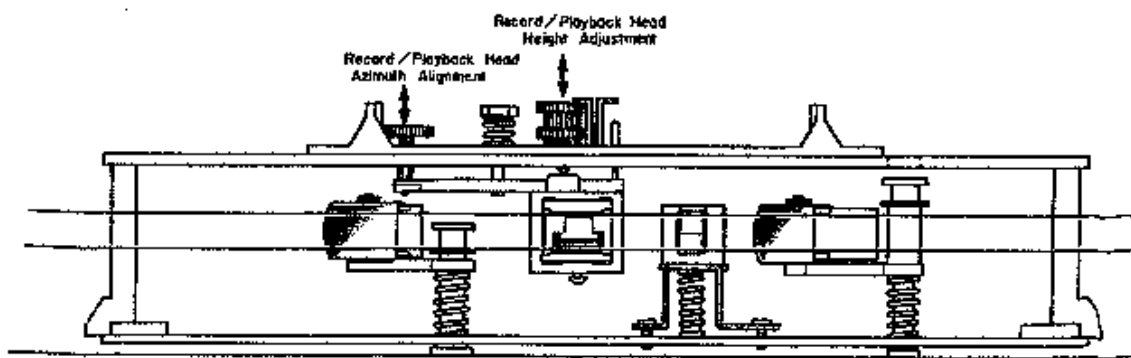


Fig. 4.15

4.9. Tape Travelling Adjustment

The adjustment shall be made with a modified version of the current type EXII C-90 as shown in Fig. 4.16 (error will be made if a current type Tape Travelling Cassette (DA08011A) should be used for this purpose).

While modifying an EXII C-90, the tape guides in the cassette housing shall be kept protected to avoid tilt. Check shall be made in the following procedures:

- (1) An EXII C-90 tape thus modified shall be loaded onto the LX-3.
- (2) Release the back-tension (rotate the Supply Reel and feed out some length of tape) and set the LX-3 in Play mode.
- (3) In this juncture, check to insure whether the tape is free from waving or slippage from the tape guide.
- (4) When the modified EXII C-90 is played back, check to insure whether the tape is freedom from waving from head surface or at pressure rollers.
- (5) If either of waving or slippage from the tape guide should be noted, adjustments of "4.3. Record/Playback Head Tilt Adjustment", "4.4. Head Base Stroke Adjustment", "4.5. Erase Head Stroke Adjustment and Tape Guide Height Check", "4.6. Erase Head Height and Tilt Adjustment", "4.7. Back Tension Adjustment", "4.8. Record/Playback Head Height Adjustment and Azimuth Alignment", etc., will be required.

As a case may be, the said waving or slippage may have been caused from defective Supply Pressure Roller Ass'y or Take-up Pressure Roller Ass'y without parallel contact with capstans. If such are noted, the Pressure Roller Assemblies will have to be replaced.

Further, excessively weak take-up torque or strong take-up torque may cause defective tape travelling.

The LX-3 is intended to be an adjustment-free model, however if the similar matters as above should be noted, please replace the Reel Hub Ass'y to obtain appropriate take-up torque.

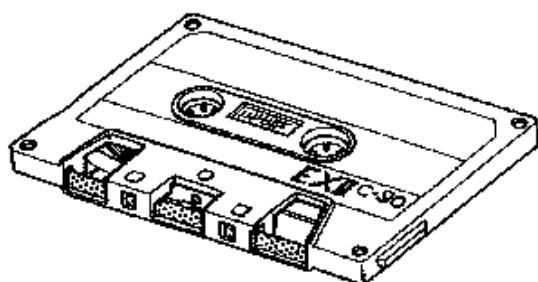


Fig. 4.16

4.10. Record Switch Linkage Adjustment

- (1) Set the LX-3 in Stop mode.
- (2) Loosen the screw of the Record Spring Holder, and shift the Record Spring Holder in order to remove the looseness of the Linkage Wire as shown in Fig. 4.17. Then tighten the screws for fixing the Record Spring Holder. (In this case, the Record Switch should be positioned at play side, if on the record position, it will be defective.)
- (3) Set the LX-3 in Record and Pause mode. Check to insure that the gap between the top of the wire and the Record Spring Holder is approx. 1 mm as shown in Fig. 4.18. (Check that the Record Switch is in record position.)
- (4) Upon completion of the above adjustments, apply a quantity of lock tight paint.

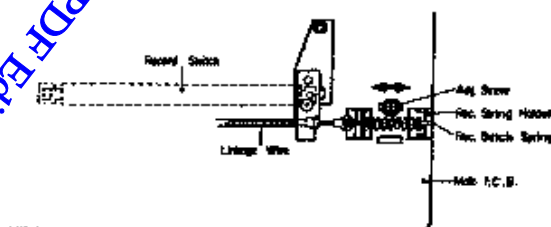


Fig. 4.17

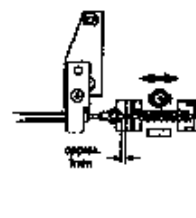


Fig. 4.18

4.11. Flywheel Holder Adjustment

(1) Refer to Fig. 4.19.

Tighten the Thrust Screws until the gap between the Flywheel Assemblies and Thrust Screws becomes minimized when both of the Capstan Shafts are moved backwardly and forwardly (the Thrust Springs between the Capstan Flanges and Flywheel Thrust Caps are in a flat state).

Excessive tightening of the Thrust Screws however will give damages on the Flywheel Assemblies, to which careful attention is invited.

- (2) Return the Thrust Screws by 1/2 turn.
- (3) Fixing the Thrust Screws with a screwdriver, lock the Lock Nut.
- (4) Apply a quantity of lock tight paint to the Thrust Screws.

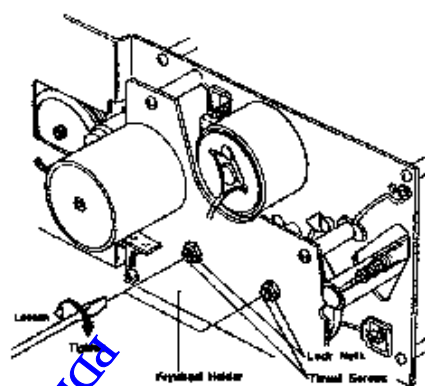


Fig. 4.19

4.12. Tape Speed Adjustment

Refer to Fig. 4.20.

- (1) Remove the Top Cover Ass'y referring to item 2.1.
- (2) Connect a Frequency Counter to the Output Jack.
- (3) Load a 3 kHz Speed Wow/Flutter Tape (DA09006A) and play it back.
- (4) Adjust the Tape Speed Adjustment Volume (VR600) incorporated in the Capstan Motor to obtain 3,000 Hz on the Frequency Counter.

CCW: Motor drives slowly.

CW: Motor drives fast.

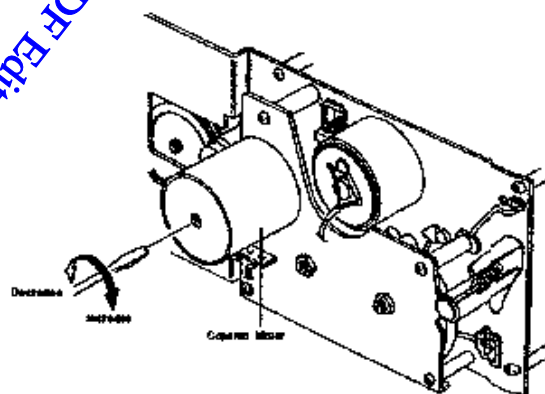


Fig. 4.20

4.13. Lubrication

LX-3 is a lubrication-free cassette deck except when parts are replaced. Apply the following lubricant for each replaced part:

- (1) LAUNA #100
Capstan Shaft
Pressure Roller Shaft
Thrust Cap
 - (2) FLOIL GB-TS-1
Reel Hub Shaft
Thrust portion on the Capstan Shaft
FLOIL GB-TS-1, made by Kanto Chemicals Co., Ltd. in Japan.
We suggest that you use the above or equivalent type. If unavailable please contact Kanto Chemicals Co., Ltd., 2-7 Kanda Suda-cho Chiyoda-ku, Tokyo 101 Japan.
 - (3) Silicon Oil #3000 CST
Air Damper Piston
- Note: Excessive lubrication may cause defective damper action as the 0.2 ϕ hole at the end of the cylinder may be filled with oil.

5. PARTS LOCATION FOR ELECTRICAL ADJUSTMENT

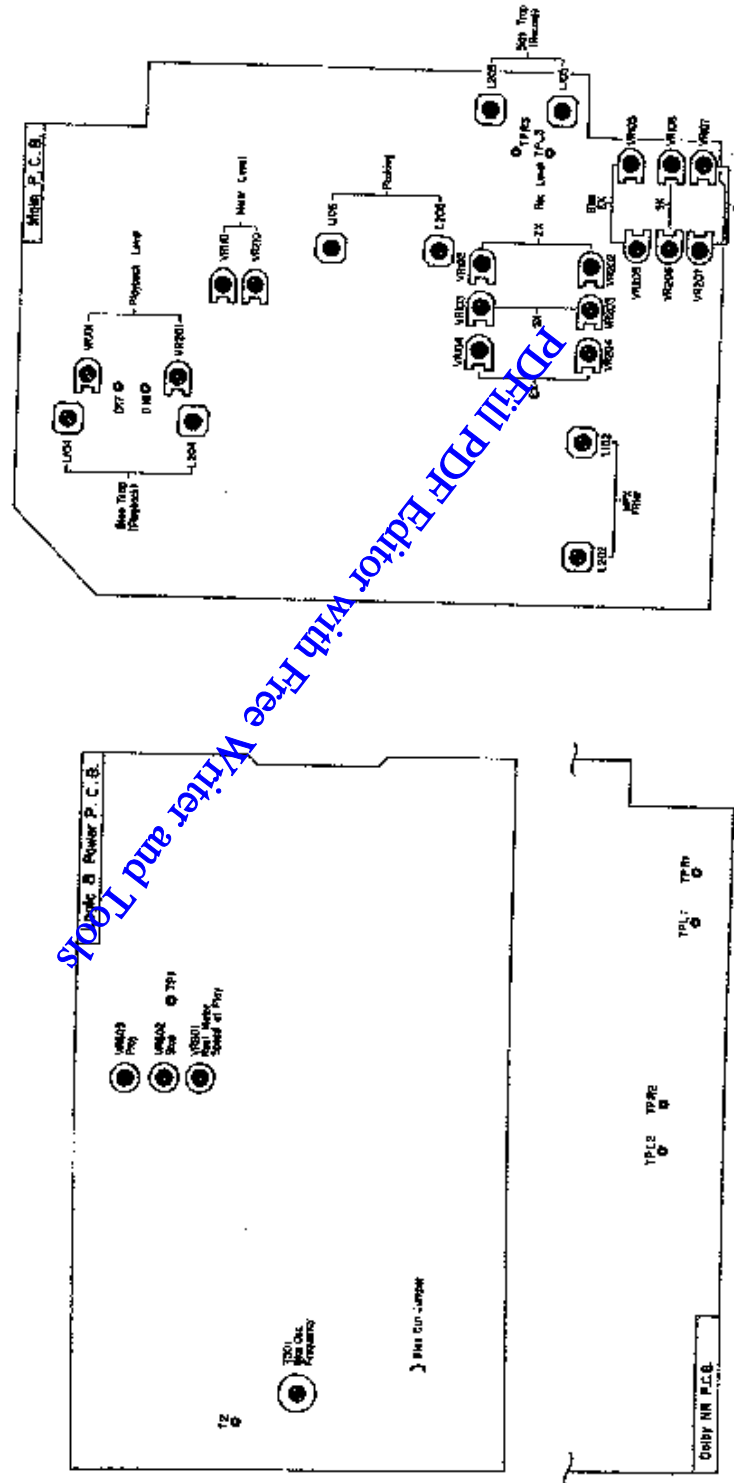


Fig. 5

6. ELECTRICAL ADJUSTMENT AND MEASUREMENTS

6.1. Adjustment and Measurement Instructions Note: Electrical adjustment should be performed after mechanical adjustment is completed.

STEP	ITEM	SIGNAL SOURCE	OUTPUT CONNECTION	MODE	ADJUSTMENT	REMARKS
1	Tape Speed Adjustment	3 kHz Speed and Flow/Pulse Type (DA00008A)	Frequency Counter to Output Jacks	Playback Bk SW - 70 μ s	Generator Motor Governor P.C.B. VR101	Adjust VR101 to obtain 3 kHz $\pm 0.5\%$. (VR101 is incorporated in the generator motor.)
2	Motor Level Calibration	400 Hz to Input Jacks	VTVM to TP1,2, TP1R2 on Delay NR P.C.B.	Record/Play Bk SW - 70 μ s	Main P.C.B. VR110, VR210	1. Feed in 400 Hz, then adjust the Input Level controls to obtain 90 mV ± 0.5 dB on the VTVM. 2. Adjust VR110 (VR210) so that the 0 dB segment of the level meter scale illuminates. 3. Adjust the Input Level controls to obtain 90 mV on the VTVM, then decrease the generator output level by 20 dB. 4. Check to ensure that the segment for -20 dB illuminates.
3	MPX Filter Adjustment	19 kHz ± 100 Hz to Input Jacks	VTVM to Output Jacks	Record/Play Bk SW - 70 μ s MPX SW - OFF	Main P.C.B. L102, L202	1. Adjust the Input Level controls to obtain 0 dB (1 V) on the VTVM. 2. Set the MPX Filter switch to IN, then adjust L102 (L202) to obtain the maximum reading on the VTVM (minimum reading will be 10 dB ± 1 dB).
4	Record/Playback Head Track Alignment	1 kHz Track Alignment Tape (DA00007A)	VTVM to Output Jacks	Record/Play Bk SW - 70 μ s Dolby NR SW - OFF MPX SW - OFF	Height Gear	Adjust the Height Gear to obtain minimum readings of both channels on the VTVM. Refer to Record/Playback Head Height Adjustment and Azimuth Alignment in Item 4.8.
5	Record/Playback Head Azimuth Alignment	18 kHz Azimuth Tape (DA00004A)	VTVM to Output Jacks	Record/Play Bk SW - 70 μ s Dolby NR SW - OFF MPX SW - OFF	Record/Playback Head Azimuth Alignment Screw	Adjust the Record/Playback Head Azimuth Alignment Screw to obtain maximum readings of both channels on the VTVM. Refer to Record/Playback Head Height Adjustment and Azimuth Alignment in Item 4.8.
6	Playback Level Calibration	400 Hz Level Tape (DA00008A)	VTVM to TP1,2, TP1R2 on Delay NR P.C.B.	Record/Play Bk SW - 70 μ s Dolby NR SW - OFF	Main P.C.B. VR101, VR201	Adjust VR101 (VR201) to obtain 90 mV on the VTVM.
7	Bias Tape Adjustment (Playback Amp.)	Parabolic Input Signals	VTVM to D17, D18 on Main P.C.B.	Record/Play Bk SW - 70 μ s Dolby NR SW - OFF	Main P.C.B. L104, L204	1. Load 10 kHz 70 μ s and 20 kHz 70 μ s frequency response tapes and adjust the recording level to obtain minimum to obtain maximum level on the VTVM with each tape. 2. Feed the maximum level tape with tape and check to ensure that the level meter is 400 mV level. Then adjust the following resistors: 10 kHz (-20 dB) - 2 dB to 3 dB 15 kHz (-20 dB) - 2 dB to 3 dB 20 kHz (-20 dB) - 3 dB to 4 dB Check to ensure that the difference in level between 10 kHz (-20 dB) and 20 kHz (-20 dB) is less than 2 dB. 3. Conduct Step 8 "Record/Playback Head Azimuth Alignment".
8	Playback Frequency Response Adjustment	400 Hz Level Tape (DA00008A) 10 kHz 70 μ s Frequency Tape (DA00005A) 15 kHz 70 μ s Frequency Tape (DA00005A) 20 kHz 70 μ s Frequency Tape (DA00005A)	VTVM to Output Jacks	Record/Play Bk SW - 70 μ s Dolby NR SW - OFF MPX SW - OFF	Main P.C.B. R120, R220 R121, R221	1. Load 10 kHz 70 μ s and 20 kHz 70 μ s frequency response tapes and adjust the recording level to obtain minimum to obtain maximum level on the VTVM with each tape. 2. Feed the maximum level tape with tape and check to ensure that the level meter is 400 mV level. Then adjust the following resistors: 10 kHz (-20 dB) - 2 dB to 3 dB 15 kHz (-20 dB) - 2 dB to 3 dB 20 kHz (-20 dB) - 3 dB to 4 dB Check to ensure that the difference in level between 10 kHz (-20 dB) and 20 kHz (-20 dB) is less than 2 dB. 3. Conduct Step 8 "Record/Playback Head Azimuth Alignment".

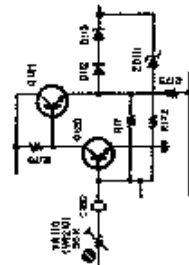


Fig. 6.1 2. Master Level

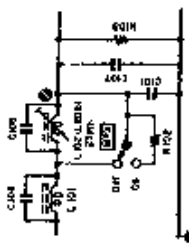


Fig. 6.2 3. MPX Filter

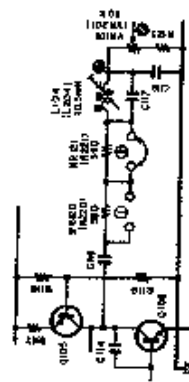


Fig. 6.3 6. Playback Level

- 7. Bias Tape (Playback Amp.)
- 8. Playback Frequency Response

STEP	ITEM	SIGNAL SOURCE	OUTPUT CONNECTION	MODE	ADJUSTMENT	REMARKS
17	Signal to Noise Ratio Measurement	400 Hz to Input Jacks	HP-A Curve Filter, Distortion Meter and VTVM to Output Jacks	Record and Playback Tune SW = ZX Eq. BW = 70 Hz Delay NR SW = ON (B-Type) C-Type MPX BW = OFF		1. Set the Bias Tune Volume to center position. 2. Set the Delay NR switch to B-Type/C-Type. 3. Feed in 400 Hz, then Record, rewind and play it back. 4. Adjust the Input Level controls to obtain 8% peak harmonic distortion in Playback mode. 5. Close the Input Level controls then record. 6. After recording, play back and check the output level difference between 4 and 5. Note: The first of HP-A curve shall be used in the measurements.
18	Total Harmonic Distortion Measurement	400 Hz to Input Jacks	VTVM and Distortion Meter to Output Jacks	Record and Playback Tune SW = ZX/BX/MPX Eq. SW = 70 Hz / 20 Hz / OFF Delay NR SW = ON (B-Type) MPX SW = OFF		1. Set the Bias Tune Volume to center position. 2. Adjust the Input Level controls to obtain 0.05 on the VTVM. 3. Record and play it back. 4. Read the distortion meter and check to insure that the distortion is as follows: BXE 1.2% or less SQ 1.2% or less ZX 1.2% or less
19	Wow/Flutter Measurement	3 kHz Sine and Wow/Flutter Tone (0.400000A)	Wow/Flutter Meter to Output Jacks	Playback Eq. BW = 70 Hz		Play back and read the wow/Flutter meter.

6.2. Playback Frequency Response Adjustment
Fig. 6.7 shows a playback equalization curve and Fig. 6.8 is the playback amp. circuit for adjustment.

(1) Peaking Adjustment for high frequency response
This adjustment will be required if playback level is not sufficient when 20 kHz PB frequency response tape is played back as referred to step 8 in 6.1 "Adjustment and Measurement Instructions".
Peaking portion compensates the amp loss of the playback head. Peaking level is varied by the shunt circuit of R120 (R220) or R121 (R221) as illustrated in Fig. 6.7.

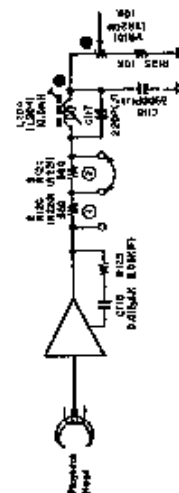


Fig. 6.8 Playback Eq. Amp.

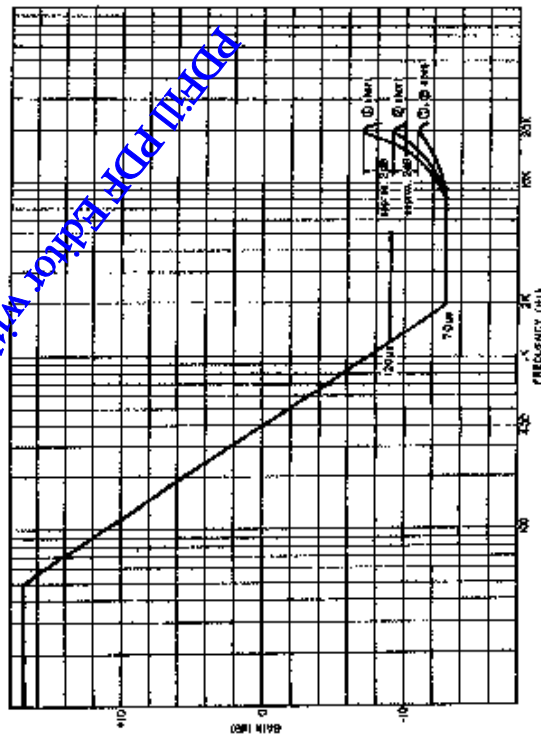


Fig. 6.7 Playback Equalization Curve

6.3. Dolby NR Circuit Check

Dolby NR circuit incorporates Dolby NR ICs which have no adjustment point.

Perform the following checks and make sure that the IC operates accurately, i.e., accuracy of frequency response through IC.

6.3.1. Dolby NR B-Type Circuit Check

(1) Playback Dolby NR Circuit

Signal Source: 1.4 kHz to negative side of C101 (C201) on Dolby NR P.C.B. (Positive side is connected to IC101-9 (IC201-9)).

Output Connection: VTVM to test point TPL2 (TPR2) on Dolby NR P.C.B.

Mode: Stop
Dolby NR SW — ON (B-Type)/
OFF

- Connect a VTVM to TPL2 (TPR2) on the Dolby NR P.C.B. Ass'y.
- Set the Dolby NR switch to B-Type. Feed in 1.4 kHz and adjust the generator output control to obtain 9 mV on the VTVM.
- Set the Dolby NR switch to OFF. Check to insure that the reading is $+3.2 \text{ dB} \pm 1.5 \text{ dB}$ on the VTVM.

(2) Record Dolby NR Circuit

Signal Source: 1.4 kHz to Input Jacks
Output Connection: VTVM to test point TPL2 (TPR2) and IC102-16 (IC202-16) on Dolby NR P.C.B.

Mode: Record/Pause
Dolby NR SW — ON (B-Type)/
OFF

- Connect a VTVM to TPL2 (TPR2) on the Dolby NR P.C.B. Ass'y.
- Feed in 1.4 kHz and adjust the input level controls to obtain 9 mV/2.85 mV on the VTVM.
- Remove the VTVM from TPL2 (TPR2) and reconnect it to IC102-16 (IC202-16).
- Check to insure that the reading at IC102-16 (IC202-16) corresponds to the following with Dolby NR switch OFF and B-Type.

Input Level at TPL2 (TPR2)	Level at IC102-16 (IC202-16)	
	Dolby NR OFF	Dolby NR B-Type
9 mV	0 dB	$+3.2 \text{ dB} \pm 1.5 \text{ dB}$
2.85 mV	0 dB	$+8.2 \text{ dB} \pm 1.5 \text{ dB}$

6.3.2. Dolby NR C-Type Circuit Check

(1) Playback Dolby NR Circuit

Signal Source: 1.4 kHz to negative side of C101 (C201) on Dolby NR P.C.B. (Positive side is connected to IC101-9 (IC201-9)).

Output Connection: VTVM to test point TPL2 (TPR2) on Dolby NR P.C.B.

Mode: Stop
Dolby NR SW — ON (C-Type)/
OFF

- Connect a VTVM to TPL2 (TPR2) on the Dolby NR P.C.B. Ass'y.
- Set the Dolby NR switch to C-Type. Feed in 1.4 kHz and adjust the generator output control to obtain 9 mV on the VTVM.
- Set the Dolby NR switch to OFF. Check to insure that the reading is $+6.5 \text{ dB} \pm 1.5 \text{ dB}$ on the VTVM.

(2) Record Dolby NR Circuit

Signal Source: 1.4 kHz to Input Jacks
Output Connection: VTVM to test point TPL2 (TPR2) and IC102-16 (IC202-16) on Dolby NR P.C.B.

Mode: Record/Pause
Dolby NR SW — ON (C-Type)/
OFF

- Connect a VTVM to TPL2 (TPR2) on the Dolby NR P.C.B. Ass'y.
- Feed in 1.4 kHz and adjust the input level controls to obtain 9 mV/2.85 mV on the VTVM.
- Remove the VTVM from TPL2 (TPR2) and reconnect it to IC102-16 (IC202-16).
- Check to insure that the reading at IC102-16 (IC202-16) corresponds to the following with Dolby NR switch OFF and C-Type.

Input Level at TPL2 (TPR2)	Level at IC102-16 (IC202-16)	
	Dolby NR OFF	Dolby NR C-Type
9 mV	0 dB	$+6.5 \text{ dB} \pm 1.5 \text{ dB}$
2.85 mV	0 dB	$+11.4 \text{ dB} \pm 1.5 \text{ dB}$

7. MOUNTING DIAGRAMS AND PARTS LIST

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
SW1 SW1 SW1 M2 M2 M2	BA04626A	Power Switch P.C.B. Assy (Japan)	LED301 LED302-306 R301,302 303,306 306 R304 R307 SW301-308 SW309,310 CN15 CN17 CN23	BA04692A	Control Switch P.C.B. Assy Serial No.: A31304445 -
	BA04627A	Power Switch P.C.B. Assy (U.S.A. & Canada)		0807993C	Control Switch P.C.B.
	BA04628A	Power Switch P.C.B. Assy (UK, Australia, 220V Class 2 & Others)		0806340A	LED Red TLR208
	0802519B	Power Switch P.C.B.		0806341A	LED Green TLG208 (5 pcs.)
	0807406A	Power Switch (Japan)		0805575A	Carbon Resistor 560 ERD-25T J
	0807407A	Power Switch (U.S.A. & Canada)		0801857A	Carbon Resistor 1K ERD-25T J
	0807408A	Power Switch S.V.S. (UK, Australia, 220V Class 2 & Others)		0805676A	Carbon Resistor 390K ERD-25T J
	0806363A	Spark Killer (Japan)		0807219A	Switch AKC8S
	0806342A	Spark Killer (U.S.A. & Canada)		0807398A	Double Action Switch KHF10901
	0806856A	Spark Killer (UK, Australia, 220V Class 2 & Others)		0808928A	8P-H Connector 450mm
O406 R604 R605 PL407 CN13	0E00822A	Screw M3x6 Phillips Pan Head (2A)	LED301 LED302-306 R301,302 303,306 306 R304 R307 SW301-308 SW309,310 CN15 CN17 CN23	0808929A	8P-H Connector 450mm
	0E00762A	Eyelet 2x3 (2 pcs.)		0808931A	10P-H Connector 400mm
	QJ04538A	Power Switch Holder (1 pcs.)		0M04222A	Label CN-15 (1 pcs.)
	BA04637A	Shut-off P.C.B. Assy		0M04224A	Label CN-17 (1 pcs.)
	0807839B	Shut-off P.C.B.		0M04332A	Label CN-23 (1 pcs.)
	0806228A	Photo Transistor PH104		BA04692A	Control Switch P.C.B. Assy Serial Nos.: A31301001 - A31304445
	0806615A	Carbon Resistor 22K ERD-25T J		0807993A	Control Switch P.C.B.
	0808215A	Fall Safe Type Resistor 100 RDP-25S J		0806340A	LED Red TLR208
	0808552A	Lamp 12V 25mm		0806341A	LED Green TLG208 (5 pcs.)
	0808847A	8P Connector		0805575A	Carbon Resistor 560 ERD-25T J
LED301 302,303 LED304 306 R301,302 CN24	0M04230A	Label CN-13 (1 pcs.)	LED301 LED302-306 R301,302 303,306 306 R304 R307 SW301-308 SW309,310 CN15 CN17 CN23	0801857A	Carbon Resistor 1K ERD-25T J
	BA04688A	LED P.C.B. Assy Serial No.: A31304445 -		0805676A	Carbon Resistor 390K ERD-25T J
	0807994C	LED P.C.B.		0807219A	Switch AKC8S
	0806340A	LED Red TLR208		0807398A	Double Action Switch KHF10901
	0806327A	LED		0808928A	8P-H Connector 450mm
	0801857A	Carbon Resistor 1K ERD-25T J		0808929A	8P-H Connector 450mm
	0806957A	8P-H Connector 450mm		0808931A	10P-H Connector 400mm
	0E00857A	BT Screw M3x6 Phillips Binding Head (1 pcs.)		0M04222A	Label CN-15 (1 pcs.)
	QJ04534A	Fader House (1 pcs.)		0M04224A	Label CN-17 (1 pcs.)
	0M04235A	Label CN-24 (1 pcs.)		0M04332A	Label CN-23 (1 pcs.)
LED301 302,303 LED304 306 R301,302 CN24	BA04593A	LED P.C.B. Assy Serial No.: A31301001 - A31304445	LED301 LED302-306 R301,302 303,306 306 R304 R307 SW301-308 SW309,310 CN15 CN17 CN23	0807994A	LED P.C.B.
	0807994A	LED P.C.B.		0806340A	LED Red TLR208
	0806340A	LED Red TLR208		0806327A	LED
	0806327A	LED		0801857A	Carbon Resistor 1K ERD-25T J
	0801857A	Carbon Resistor 1K ERD-25T J		0806957A	8P-H Connector 450mm
	0806957A	8P-H Connector 450mm		0E00857A	BT Screw M3x6 Phillips Binding Head (1 pcs.)
	0E00857A	BT Screw M3x6 Phillips Binding Head (1 pcs.)		QJ04534A	Fader House (1 pcs.)
	QJ04534A	Fader House (1 pcs.)		0M04236A	Label CN-24 (1 pcs.)
	0M04236A	Label CN-24 (1 pcs.)			

Note: Mounting diagram shows a clip side view of the printed circuit board.

7.1. Power Switch P.C.B. Assy

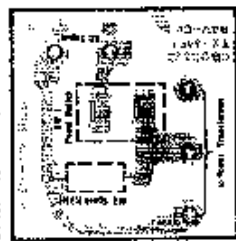


Fig. 7.1

7.2. Shut-off P.C.B. Assy

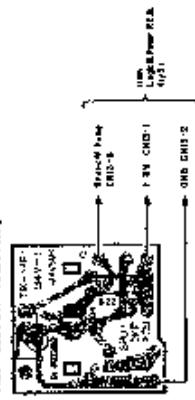


Fig. 7.2

7.3. LED P.C.B. Assy

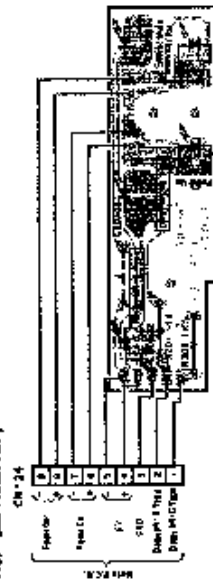


Fig. 7.3.1 Serial No.: A31304446

Control Switch P.C.B. Assy

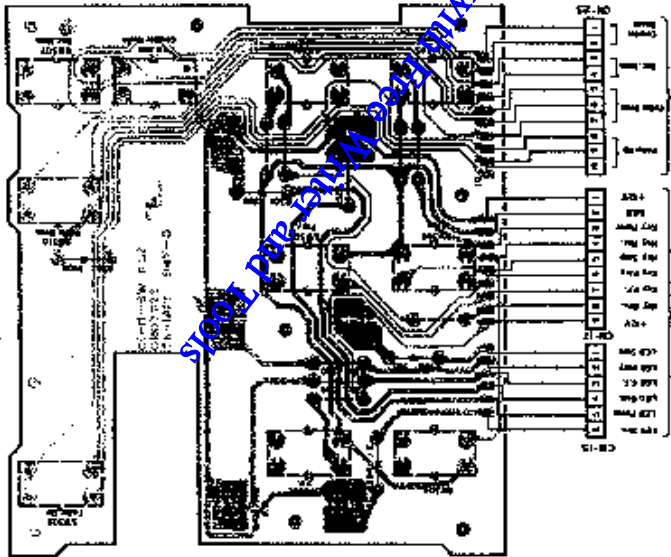


Fig. 7.4.1 Serial No.: A31304446

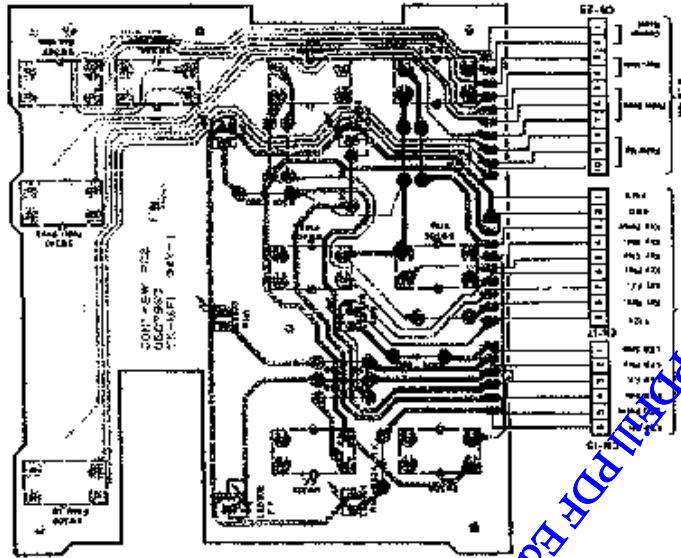


Fig. 7.4.2 Serial No.: A31304446

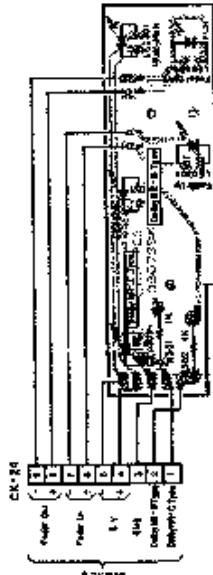
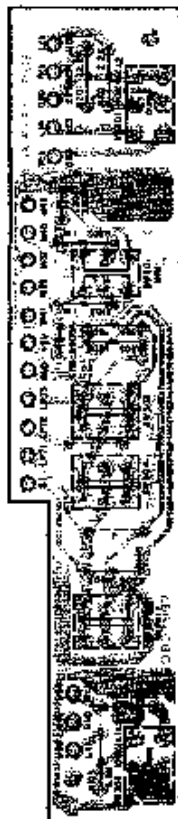


Fig. 7.5.2 Serial No.: A31304446

7.8. Amp. Switch P.C.B. Assy



Reference Ref. No.	Part No.	Quantity	Remarks Part. No.	Description
8025	080878A	Carbon Resistor	8025	Carbon Resistor
8016	080879A	Carbon Resistor	8016	Carbon Resistor
8011	080880A	Carbon Resistor	8011	Carbon Resistor
8004	080881A	Carbon Resistor	8004	Carbon Resistor
8003	080882A	Carbon Resistor	8003	Carbon Resistor
8002	080883A	Carbon Resistor	8002	Carbon Resistor
8001	080884A	Carbon Resistor	8001	Carbon Resistor
8000	080885A	Carbon Resistor	8000	Carbon Resistor
7999	080886A	Carbon Resistor	7999	Carbon Resistor
7998	080887A	Carbon Resistor	7998	Carbon Resistor
7997	080888A	Carbon Resistor	7997	Carbon Resistor
7996	080889A	Carbon Resistor	7996	Carbon Resistor
7995	080890A	Carbon Resistor	7995	Carbon Resistor
7994	080891A	Carbon Resistor	7994	Carbon Resistor
7993	080892A	Carbon Resistor	7993	Carbon Resistor
7992	080893A	Carbon Resistor	7992	Carbon Resistor
7991	080894A	Carbon Resistor	7991	Carbon Resistor
7990	080895A	Carbon Resistor	7990	Carbon Resistor
7989	080896A	Carbon Resistor	7989	Carbon Resistor
7988	080897A	Carbon Resistor	7988	Carbon Resistor
7987	080898A	Carbon Resistor	7987	Carbon Resistor
7986	080899A	Carbon Resistor	7986	Carbon Resistor
7985	080900A	Carbon Resistor	7985	Carbon Resistor
7984	080901A	Carbon Resistor	7984	Carbon Resistor
7983	080902A	Carbon Resistor	7983	Carbon Resistor
7982	080903A	Carbon Resistor	7982	Carbon Resistor
7981	080904A	Carbon Resistor	7981	Carbon Resistor
7980	080905A	Carbon Resistor	7980	Carbon Resistor
7979	080906A	Carbon Resistor	7979	Carbon Resistor
7978	080907A	Carbon Resistor	7978	Carbon Resistor
7977	080908A	Carbon Resistor	7977	Carbon Resistor
7976	080909A	Carbon Resistor	7976	Carbon Resistor
7975	080910A	Carbon Resistor	7975	Carbon Resistor
7974	080911A	Carbon Resistor	7974	Carbon Resistor
7973	080912A	Carbon Resistor	7973	Carbon Resistor
7972	080913A	Carbon Resistor	7972	Carbon Resistor
7971	080914A	Carbon Resistor	7971	Carbon Resistor
7970	080915A	Carbon Resistor	7970	Carbon Resistor
7969	080916A	Carbon Resistor	7969	Carbon Resistor
7968	080917A	Carbon Resistor	7968	Carbon Resistor
7967	080918A	Carbon Resistor	7967	Carbon Resistor
7966	080919A	Carbon Resistor	7966	Carbon Resistor
7965	080920A	Carbon Resistor	7965	Carbon Resistor
7964	080921A	Carbon Resistor	7964	Carbon Resistor
7963	080922A	Carbon Resistor	7963	Carbon Resistor
7962	080923A	Carbon Resistor	7962	Carbon Resistor
7961	080924A	Carbon Resistor	7961	Carbon Resistor
7960	080925A	Carbon Resistor	7960	Carbon Resistor
7959	080926A	Carbon Resistor	7959	Carbon Resistor
7958	080927A	Carbon Resistor	7958	Carbon Resistor
7957	080928A	Carbon Resistor	7957	Carbon Resistor
7956	080929A	Carbon Resistor	7956	Carbon Resistor
7955	080930A	Carbon Resistor	7955	Carbon Resistor
7954	080931A	Carbon Resistor	7954	Carbon Resistor
7953	080932A	Carbon Resistor	7953	Carbon Resistor
7952	080933A	Carbon Resistor	7952	Carbon Resistor
7951	080934A	Carbon Resistor	7951	Carbon Resistor
7950	080935A	Carbon Resistor	7950	Carbon Resistor
7949	080936A	Carbon Resistor	7949	Carbon Resistor
7948	080937A	Carbon Resistor	7948	Carbon Resistor
7947	080938A	Carbon Resistor	7947	Carbon Resistor
7946	080939A	Carbon Resistor	7946	Carbon Resistor
7945	080940A	Carbon Resistor	7945	Carbon Resistor
7944	080941A	Carbon Resistor	7944	Carbon Resistor
7943	080942A	Carbon Resistor	7943	Carbon Resistor
7942	080943A	Carbon Resistor	7942	Carbon Resistor
7941	080944A	Carbon Resistor	7941	Carbon Resistor
7940	080945A	Carbon Resistor	7940	Carbon Resistor
7939	080946A	Carbon Resistor	7939	Carbon Resistor
7938	080947A	Carbon Resistor	7938	Carbon Resistor
7937	080948A	Carbon Resistor	7937	Carbon Resistor
7936	080949A	Carbon Resistor	7936	Carbon Resistor
7935	080950A	Carbon Resistor	7935	Carbon Resistor
7934	080951A	Carbon Resistor	7934	Carbon Resistor
7933	080952A	Carbon Resistor	7933	Carbon Resistor
7932	080953A	Carbon Resistor	7932	Carbon Resistor
7931	080954A	Carbon Resistor	7931	Carbon Resistor
7930	080955A	Carbon Resistor</		

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
R145,245 301,302 303,304	0B01889A	Carbon Resistor 100K ERD-25T J		0E00857A	ST Screw M3x6 Phillips Binding Head (1 pcs.)
R161,261	0B09585A	Metal Film Resistor 2.1K SN14K2E F		0J04482A	Shield Case D (1 pcs.)
C101,103 105,108 116,118 120,121 201,203 205,208 216,218 220,221	0B08223A	Electrolytic Capacitor 1μ 50V (LN)		0M04331A	Label CN-22 (1 pcs.)
C102,202	0B06587A	Mylar Capacitor 0.015μ 50V J		0J04545A	Dolby NR P.C.B. Shield Plate (1 pcs.)
C104,204	0B08408A	PP Capacitor 1800P 100V G		- Miscellaneous -	
C108,122	0B06581A	Mylar Capacitor 0.01μ 50V J		0B06000C	Dolby NR P.C.B.
206,222				0B08570A	Record Spring Holder (1 pcs.)
C107,123	0B08240A	PP Capacitor 0.033μ 100V G		0E00172A	Washer 3mm Toothed Lock (1 pcs.)
136,207 223,226				0E00222A	E-Ring 2mm (1 pcs.)
C109,124	0B01862A	Electrolytic Capacitor 22μ 16V		0E00657A	Nut Hex. M3 (1 pcs.)
208,224				0E0046A	BT Screw M3x8 Phillips Pan Head (1 pcs.)
C110,126	0B01402A	Electrolytic Capacitor 4.7μ 25V		0B04531A	Record Switch Shaft B (1 pcs.)
210,226				0A03922A	Record Arm Assy (1 pcs.)
C111,211	0B06583A	Mylar Capacitor 0.033μ 50V J			
C112,113	0B01780A	Mylar Capacitor 0.1μ 50V J			
212,213					
C114,115	0B09587A	Electrolytic Capacitor 0.33μ 50V (LN) K			
214,215					
C117,217	0B08594A	Mylar Capacitor 0.03μ 50V J			
D118,131	0B01412A	Electrolytic Capacitor 10μ 16V			
219,231					
C126,226	0B06586A	Mylar Capacitor 0.13μ 50V J			
C127,227	0B05796A	Mylar Capacitor 0.047μ 50V J			
C128,228	0B08014A	Mylar Capacitor 0.15μ 50V J			
C130,230	0B08163A	Electrolytic Capacitor 10μ 16V (BP)			
C132,232	0B06584A	Electrolytic Capacitor 470μ 10V			
	0B08714A	IC Socket 16P (4 pcs.)			
- Line Amp. -					
IC301	0B06287A	IC TA7568P-R			
Q107,207	0B01872A	Transistor 2SC945 (L)			
L101,201	0B06576A	Inductor 38mH G			
R146,246	0B01888A	Carbon Resistor 10K ERD-25T J			
R148,161 249,261	0B01887A	Carbon Resistor 1K ERD-25T J			
R150,154 250,264	0B06826A	Carbon Resistor 220K ERD-25T J			
R162,262	0B06507A	Metal Film Resistor 3.57K SN14K2E F			
R163,263	0B08582A	Metal Film Resistor 43.2K SN14K2E F			
R180,280	0B09767A	Metal Film Resistor 1.54K SN14K2E F			
R182,282	0B06936A	Carbon Resistor 10 ERD-25T J			
R308	0B06808A	Carbon Resistor 33K ERD-25T J			
C133,233	0B08408A	PP Capacitor 1800P 100V G			
C134,234	0B08223A	Electrolytic Capacitor 1μ 50V (LN)			
C135,235	0B01412A	Electrolytic Capacitor 10μ 16V			
C301,302	0B01408A	Electrolytic Capacitor 100μ 16V			
SW301	0B07390A	Record Switch 16N5 CL116R			
CN22	0B08654A	4P-T Post			
	0E00507A	Nut Hex. M3 (1 pcs.)			
	0E00510A	Screw M3x8 Phillips Pan Head (2A) (1 pcs.)			

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
	BA0453BA	Dolby NR P.C.B. Assy (U.S.A. & Canada) Serial Nos.: A31301001 - A31304445	R145,245	0B01889A	Carbon Resistor 100K ERD-25T J
	- RP Dolby NR -		301,302		
			303,304		
IC101,102	0B08200A	IC μ A7300PC	R161,261	0B08685A	Metal Film Resistor 2.1K SN14K2E F
201,202			C101,103	0B08223A	Electrolytic Capacitor 1 μ 50V (LN)
Q101,106	0B01872A	Transistor 2N3945 (L)	105,108		
201,206		(12 pcs.)	116,118		
ZD101,201	0B06315A	Zener Diode 6.8V XZ068	120,121		
D101,103	0B06181A	Silicon Diode 1S553	201,203		
105,201			205,208		
203,205			216,218		
D102,202	0B00030A	Germanium Diode 1N60P	220,221		
R101,201	0B08568A	Metal Film Resistor 3.6K SN14K2E F	C102,202	0B08557A	Mylar Capacitor 0.015 μ 50V J
R102,202	0B08420A	Metal Film Resistor 2.2K SN14K2E F	C104,204	0B08408A	PP Capacitor 1800P 100V G
R103,105	0B01681A	Carbon Resistor 3.3K ERD-25T J	C106,122	0B08681A	Mylar Capacitor 0.01 μ 50V J
130,203			205,222		
205,230			C107,123	0B08240A	PP Capacitor 0.033 μ 100V G
R104,108	0B0641A	Carbon Resistor 47K ERD-25T J	136,201		
117,118			222,236		
122,129			C109,124	0B01882A	Electrolytic Capacitor 22 μ 16V
136,204			205,224		
206,217			C110,125	0B01402A	Electrolytic Capacitor 4.7 μ 25V
218,222			210,225		
228,236			C111,211	0B08583A	Mylar Capacitor 0.033 μ 50V J
R106,144	0B01857A	Carbon Resistor 1K ERD-25T J	C112,113	0B01780A	Mylar Capacitor 0.1 μ 50V J
205,244			212,213		
R107,136	0B08567A	Metal Film Resistor 13K SN14K2E F	C114,115	0B08567A	Electrolytic Capacitor 0.33 μ 50V (LN) K
207,235			214,216		
R109,209	0B08568A	Metal Film Resistor 3.42K SN14K2E F	C117,217	0B08584A	Mylar Capacitor 0.03 μ 50V J
R110,121	0B05776A	Carbon Resistor 1M ERD-25T J	C118,131	0B01412A	Electrolytic Capacitor 10 μ 16V
126,134			219,231		
147,210			C126,226	0B08565A	Mylar Capacitor 0.13 μ 50V J
221,226			C127,227	0B05786A	Mylar Capacitor 0.047 μ 50V J
234,247			C128,228	0B06814A	Mylar Capacitor 0.15 μ 50V J
R111,211	0B06615A	Carbon Resistor 22K ERD-25T J	C130,230	0B08163A	Electrolytic Capacitor 10 μ 16V (BP)
R112,137	0B09271A	Carbon Resistor 6.2K ERD-25T J	C132,232	0B05884A	Electrolytic Capacitor 470 μ 10V
212,237				0B08714A	IC Socket 16P (4 pcs.)
R113,114	0B06620A	Carbon Resistor 270K ERD-25T J		- Line Amp. -	
138,140			IC301	0B06287A	IC TA75558P-R
213,214			Q107,207	0B01872A	Transistor 2N3945 (L)
238,240			L101,201	0B06678A	Inductor 38mH G
R116,215	0B08335A	Carbon Resistor 680K ERD-25T J	R148,248	0B01888A	Carbon Resistor 10K ERD-25T J
R118,216	0B01683A	Carbon Resistor 15K ERD-25T J	R149,151	0B01857A	Carbon Resistor 1K ERD-25T J
R119,219	0B01846A	Carbon Resistor 4.7K ERD-25T J	249,251		
R120,220	0B06522A	Carbon Resistor 2.2K ERD-25T J	R160,164	0B0825A	Carbon Resistor 220K ERD-25T J
R123,139	0B06525A	Carbon Resistor 220K ERD-25T J	250,254		
223,239			R152,252		
R124,224	0B06826A	Carbon Resistor 150K ERD-25T J	R153,253	0B08507A	Metal Film Resistor 3.67K SN14K2E F
R127,227	0B05794A	Carbon Resistor 680 ERD-25T J	R180,250	0B08582A	Metal Film Resistor 43.2K SN14K2E F
R128,131	0B08555A	Carbon Resistor 1.6K ERD-25T J	R162,262	0B08757A	Metal Film Resistor 1.84K SN14K2E F
228,231			R306	0B05509A	Carbon Resistor 10 ERD-25T J
R132,232	0B08356A	Metal Film Resistor 4.7K SN14K2E F	C133,233	0B08408A	Carbon Resistor 33K ERD-25T J
R133,233	0B08772A	Metal Film Resistor 3.09K SN14K2E F	C134,234	0B08223A	PP Capacitor 1800P 100V G
R141,241	0B05743A	Carbon Resistor 27K ERD-25T J	C135,235	0B01412A	Electrolytic Capacitor 1 μ 50V (LN)
R142,146	0B01888A	Carbon Resistor 10K ERD-25T J	C301,302	0B01400A	Electrolytic Capacitor 10 μ 16V
242,246			SW301	0B07390A	Reed Switch 16NS CL116R
305			CN22	0B08554A	4P-T Post
R143,243	0B05577A	Carbon Resistor 33B ERD-25T J		0E00507A	Nut Hex, M3 (1 pc.)
				0E00610A	Screw M3x8 Philips Pan Head (2A) (1 pc.)

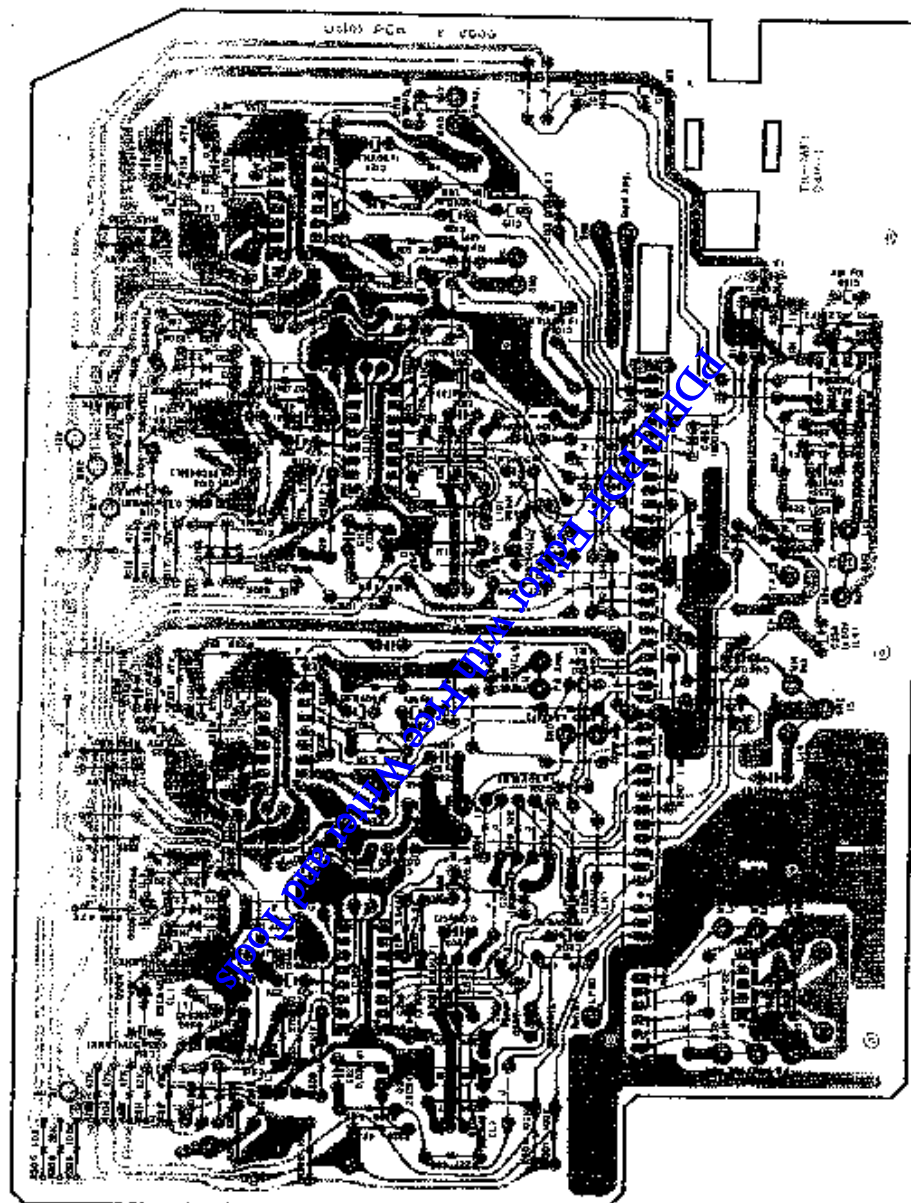


Fig. 7.9.12 Serial No.: A31301001 - A31304445

Note: Diode is 1S55, 1S55S, or 1S1656 unless otherwise specified.

Part No.	Description
062081A	BT Screw M3x6 Multi-Point Baseplate Head
Q04452A	Shield Case D
Q04453A	Label CR122
Q04454A	Dialer AIR P.C.B. Shield Plate
-- Miscellaneous --	
Q04455A	Dialer AIR P.C.B.
Q04456A	Fixed Spring Holder
Q04457A	Washer Screw Threaded Lock
Q04458A	ES-1100 Switch
Q04459A	Anti-Misc. MS
Q04460A	BT Screw M3x6 Multi-Point Baseplate Head
Q04461A	Fixed Shield Plate B
Q04462A	Fixed Arm Assy

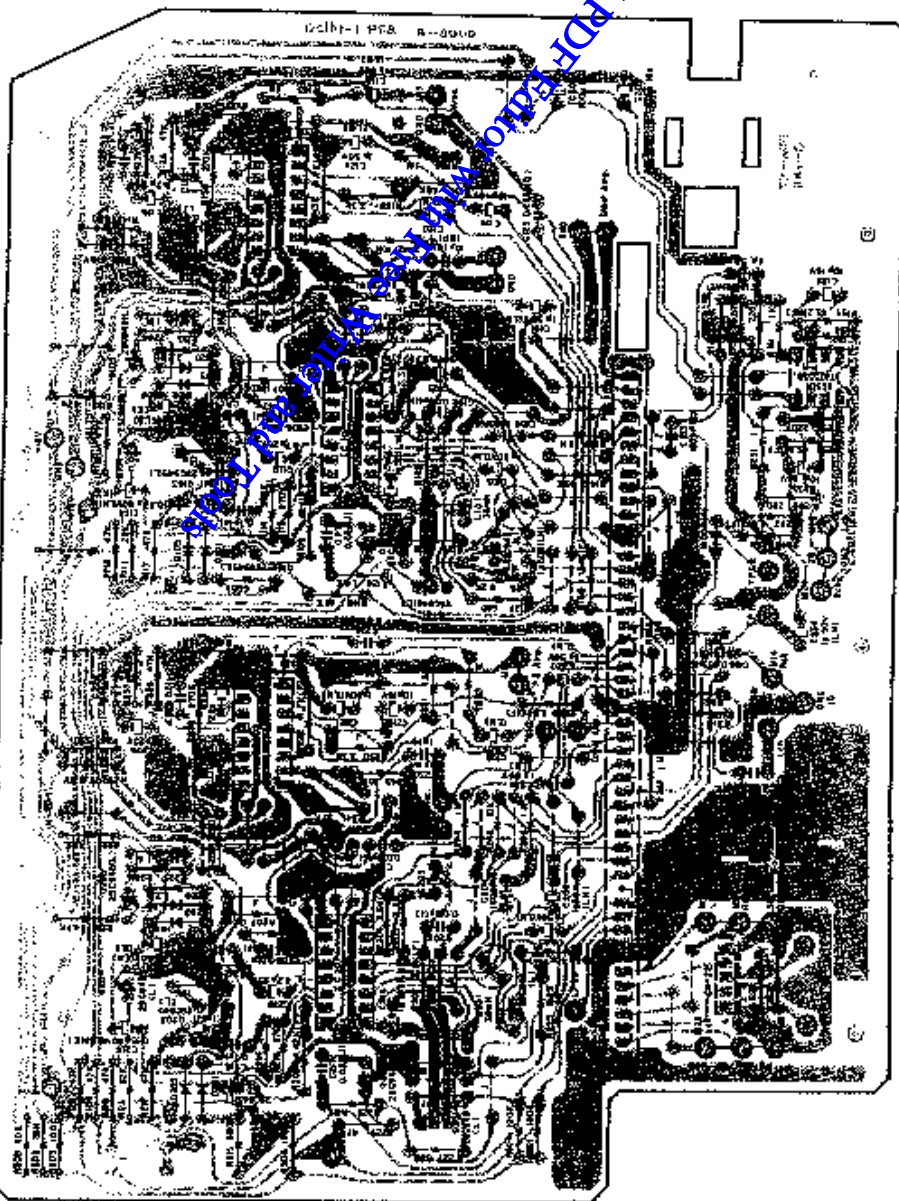


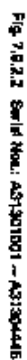
Fig. 7.9.21. Serial No.: A31304648 -

Note: Check 1, 15053, 15053, or 15155 unless otherwise specified.

Standard Part No.	Part No.	Description
8040464A	Display M/R P.C.B. Assy (U.K., Australia, Canada, C.Mex. & Mexico)	
	Serial No.: A31304448 -	
	- 50 Display M/R -	
81011102	IC	LA2350
81071106	Transistor	2SC548 ILJ
81071107	Transistor	112 polJ
81071108	Transistor	2SC548 ILJ
81071109	Transistor	112 polJ
81071110	Transistor	2SC548 ILJ
81071111	Transistor	112 polJ
81071112	Transistor	2SC548 ILJ
81071113	Transistor	112 polJ
81071114	Transistor	2SC548 ILJ
81071115	Transistor	112 polJ
81071116	Transistor	2SC548 ILJ
81071117	Transistor	112 polJ
81071118	Transistor	2SC548 ILJ
81071119	Transistor	112 polJ
81071120	Transistor	2SC548 ILJ
81071121	Transistor	112 polJ
81071122	Transistor	2SC548 ILJ
81071123	Transistor	112 polJ
81071124	Transistor	2SC548 ILJ
81071125	Transistor	112 polJ
81071126	Transistor	2SC548 ILJ
81071127	Transistor	112 polJ
81071128	Transistor	2SC548 ILJ
81071129	Transistor	112 polJ
81071130	Transistor	2SC548 ILJ
81071131	Transistor	112 polJ
81071132	Transistor	2SC548 ILJ
81071133	Transistor	112 polJ
81071134	Transistor	2SC548 ILJ
81071135	Transistor	112 polJ
81071136	Transistor	2SC548 ILJ
81071137	Transistor	112 polJ
81071138	Transistor	2SC548 ILJ
81071139	Transistor	112 polJ
81071140	Transistor	2SC548 ILJ
81071141	Transistor	112 polJ
81071142	Transistor	2SC548 ILJ
81071143	Transistor	112 polJ
81071144	Transistor	2SC548 ILJ
81071145	Transistor	112 polJ
81071146	Transistor	2SC548 ILJ
81071147	Transistor	112 polJ
81071148	Transistor	2SC548 ILJ
81071149	Transistor	112 polJ
81071150	Transistor	2SC548 ILJ
81071151	Transistor	112 polJ
81071152	Transistor	2SC548 ILJ
81071153	Transistor	112 polJ
81071154	Transistor	2SC548 ILJ
81071155	Transistor	112 polJ
81071156	Transistor	2SC548 ILJ
81071157	Transistor	112 polJ
81071158	Transistor	2SC548 ILJ
81071159	Transistor	112 polJ
81071160	Transistor	2SC548 ILJ
81071161	Transistor	112 polJ
81071162	Transistor	2SC548 ILJ
81071163	Transistor	112 polJ
81071164	Transistor	2SC548 ILJ
81071165	Transistor	112 polJ
81071166	Transistor	2SC548 ILJ
81071167	Transistor	112 polJ
81071168	Transistor	2SC548 ILJ
81071169	Transistor	112 polJ
81071170	Transistor	2SC548 ILJ
81071171	Transistor	112 polJ
81071172	Transistor	2SC548 ILJ
81071173	Transistor	112 polJ
81071174	Transistor	2SC548 ILJ
81071175	Transistor	112 polJ
81071176	Transistor	2SC548 ILJ
81071177	Transistor	112 polJ
81071178	Transistor	2SC548 ILJ
81071179	Transistor	112 polJ
81071180	Transistor	2SC548 ILJ
81071181	Transistor	112 polJ
81071182	Transistor	2SC548 ILJ
81071183	Transistor	112 polJ
81071184	Transistor	2SC548 ILJ
81071185	Transistor	112 polJ
81071186	Transistor	2SC548 ILJ
81071187	Transistor	112 polJ
81071188	Transistor	2SC548 ILJ
81071189	Transistor	112 polJ
81071190	Transistor	2SC548 ILJ
81071191	Transistor	112 polJ
81071192	Transistor	2SC548 ILJ
81071193	Transistor	112 polJ
81071194	Transistor	2SC548 ILJ
81071195	Transistor	112 polJ
81071196	Transistor	2SC548 ILJ
81071197	Transistor	112 polJ
81071198	Transistor	2SC548 ILJ
81071199	Transistor	112 polJ
81071200	Transistor	2SC548 ILJ
81071201	Transistor	112 polJ
81071202	Transistor	2SC548 ILJ
81071203	Transistor	112 polJ
81071204	Transistor	2SC548 ILJ
81071205	Transistor	112 polJ
81071206	Transistor	2SC548 ILJ
81071207	Transistor	112 polJ
81071208	Transistor	2SC548 ILJ
81071209	Transistor	112 polJ
81071210	Transistor	2SC548 ILJ
81071211	Transistor	112 polJ
81071212	Transistor	2SC548 ILJ
81071213	Transistor	112 polJ
81071214	Transistor	2SC548 ILJ
81071215	Transistor	112 polJ
81071216	Transistor	2SC548 ILJ
81071217	Transistor	112 polJ
81071218	Transistor	2SC548 ILJ
81071219	Transistor	112 polJ
81071220	Transistor	2SC548 ILJ
81071221	Transistor	112 polJ
81071222	Transistor	2SC548 ILJ
81071223	Transistor	112 polJ
81071224	Transistor	2SC548 ILJ
81071225	Transistor	112 polJ
81071226	Transistor	2SC548 ILJ
81071227	Transistor	112 polJ
81071228	Transistor	2SC548 ILJ
81071229	Transistor	112 polJ
81071230	Transistor	2SC548 ILJ
81071231	Transistor	112 polJ
81071232	Transistor	2SC548 ILJ
81071233	Transistor	112 polJ
81071234	Transistor	2SC548 ILJ
81071235	Transistor	112 polJ
81071236	Transistor	2SC548 ILJ
81071237	Transistor	112 polJ
81071238	Transistor	2SC548 ILJ
81071239	Transistor	112 polJ
81071240	Transistor	2SC548 ILJ
81071241	Transistor	112 polJ
81071242	Transistor	2SC548 ILJ
81071243	Transistor	112 polJ
81071244	Transistor	2SC548 ILJ
81071245	Transistor	112 polJ
81071246	Transistor	2SC548 ILJ
81071247	Transistor	112 polJ
81071248	Transistor	2SC548 ILJ
81071249	Transistor	112 polJ
81071250	Transistor	2SC548 ILJ
81071251	Transistor	112 polJ
81071252	Transistor	2SC548 ILJ
81071253	Transistor	112 polJ
81071254	Transistor	2SC548 ILJ
81071255	Transistor	112 polJ
81071256	Transistor	2SC548 ILJ
81071257	Transistor	112 polJ
81071258	Transistor	2SC548 ILJ
81071259	Transistor	112 polJ
81071260	Transistor	2SC548 ILJ
81071261	Transistor	112 polJ
81071262	Transistor	2SC548 ILJ
81071263	Transistor	112 polJ
81071264	Transistor	2SC548 ILJ
81071265	Transistor	112 polJ
81071266	Transistor	2SC548 ILJ
81071267	Transistor	112 polJ
81071268	Transistor	2SC548 ILJ
81071269	Transistor	112 polJ
81071270	Transistor	2SC548 ILJ
81071271	Transistor	112 polJ
81071272	Transistor	2SC548 ILJ
81071273	Transistor	112 polJ
81071274	Transistor	2SC548 ILJ
81071275	Transistor	112 polJ
81071276	Transistor	2SC548 ILJ
81071277	Transistor	112 polJ
81071278	Transistor	2SC548 ILJ
81071279	Transistor	112 polJ
81071280	Transistor	2SC548 ILJ
81071281	Transistor	112 polJ
81071282	Transistor	2SC548 ILJ
81071283	Transistor	112 polJ
81071284	Transistor	2SC548 ILJ
81071285	Transistor	112 polJ
81071286	Transistor	2SC548 ILJ
81071287	Transistor	112 polJ
81071288	Transistor	2SC548 ILJ
81071289	Transistor	112 polJ
81071290	Transistor	2SC548 ILJ
81071291	Transistor	112 polJ
81071292	Transistor	2SC548 ILJ
81071293	Transistor	112 polJ
81071294	Transistor	2SC548 ILJ
81071295	Transistor	112 polJ
81071296	Transistor	2SC548 ILJ
81071297	Transistor	112 polJ
81071298	Transistor	2SC548 ILJ
81071299	Transistor	112 polJ
81071300	Transistor	2SC548 ILJ
81071301	Transistor	112 polJ
81071302	Transistor	2SC548 ILJ
81071303	Transistor	112 polJ
81071304	Transistor	2SC548 ILJ
81071305	Transistor	112 polJ
81071306	Transistor	2SC548 ILJ
81071307	Transistor	112 polJ
81071308	Transistor	2SC548 ILJ
81071309	Transistor	112 polJ
81071310	Transistor	2SC548 ILJ
81071311	Transistor	112 polJ
81071312	Transistor	2SC548 ILJ
81071313	Transistor	112 polJ
81071314	Transistor	2SC548 ILJ
81071315	Transistor	112 polJ
81071316	Transistor	2SC548 ILJ
81071317	Transistor	112 polJ
81071318	Transistor	2SC548 ILJ
81071319	Transistor	112 polJ
81071320	Transistor	2SC548 ILJ
81071321	Transistor	112 polJ
81071322	Transistor	2SC548 ILJ
81071323	Transistor	112 polJ
81071324	Transistor	2SC548 ILJ
81071325	Transistor	112 polJ
81071326	Transistor	2SC548 ILJ
81071327	Transistor	112 polJ
81071328	Transistor	2SC548 ILJ
81071329	Transistor	112 polJ
81071330	Transistor	2SC548 ILJ
81071331	Transistor	112 polJ
81071332	Transistor	2SC548 ILJ
81071333	Transistor	112 polJ
81071334	Transistor	2SC548 ILJ
81071335	Transistor	112 polJ
81071336	Transistor	2SC548 ILJ
81071337	Transistor	112 polJ
81071338	Transistor	2SC548 ILJ
81071339	Transistor	112 polJ
81071340	Transistor	2SC548 ILJ
81071341	Transistor	112 polJ
81071342	Transistor	2SC548 ILJ
81071343	Transistor	112 polJ
81071344	Transistor	2SC548 ILJ
81071345	Transistor	112 polJ
81071346	Transistor	2SC548 ILJ
81071347	Transistor	112 polJ
81071348	Transistor	2SC548 ILJ
81071349	Transistor	112 polJ
81071350	Transistor	2SC548 ILJ
81071351	Transistor	112 polJ
81071352	Transistor	2SC548 ILJ
81071353	Transistor	112 polJ
81071354	Transistor	2SC548 ILJ
81071355	Transistor	112 polJ
81071356	Transistor	2SC548 ILJ
81071357	Transistor	112 polJ
81071358	Transistor	2SC548 ILJ
81071359	Transistor	112 polJ
81071360	Transistor	2SC548 ILJ
81071361	Transistor	112 polJ
81071362	Transistor	2SC548 ILJ
81071363	Transistor	112 polJ
81071364	Transistor	2SC548 ILJ
81071365	Transistor	112 polJ
81071366	Transistor	2SC548 ILJ
81071367	Transistor	112 polJ
81071368	Transistor	2SC548 ILJ
81071369	Transistor	112 polJ
81071370	Transistor	2SC548 ILJ
81071371	Transistor	112 polJ
81071372	Transistor	2SC548 ILJ
81071373	Transistor	112 polJ
81071374	Transistor	2SC548 ILJ
81071375	Transistor	112 polJ
81071376	Transistor	2SC548 ILJ
81071377	Transistor	112 polJ
81071378	Transistor	2SC548 ILJ
81071379	Transistor	112 polJ
81071380	Transistor	2SC548 ILJ
81071381	Transistor	112 polJ
81071382	Transistor	2SC548 ILJ
81071383	Transistor	112 polJ
81071384	Transistor	2SC548 ILJ
81071385	Transistor	112 polJ
81071386	Transistor	2SC548 ILJ
81071387	Transistor	112 polJ
81071388	Transistor	2SC548 ILJ
81071389	Transistor	112 polJ
81071390	Transistor	2SC548 ILJ
81071391	Transistor	112 polJ
81071392	Transistor	2SC548 ILJ
81071393	Transistor	112 polJ
81071394	Transistor	2SC548 ILJ
81071395	Transistor	112 polJ
81071396	Transistor	2SC548 ILJ
81071397	Transistor	112 polJ
81071398	Transistor	2SC548 ILJ
81071399	Transistor	112 polJ
81071400	Transistor	2SC548 ILJ
81071401	Transistor	112 polJ
81071402	Transistor	2SC548 ILJ
81071403	Transistor	112 polJ
81071404	Transistor	2SC548 ILJ
81071405	Transistor	112 polJ
81071406	Transistor	2SC548 ILJ
81071407	Transistor	112 polJ
81071408	Transistor	2SC548 ILJ
81071409	Transistor	112 polJ
81071410	Transistor	2SC548 ILJ
81071411	Transistor	112 polJ
81071412	Transistor	2SC548 ILJ
81071413	Transistor	112 polJ
81071414	Transistor	2SC548 ILJ
81071415	Transistor	112 polJ
81071416	Transistor	2SC548 ILJ
81071417	Transistor	112 polJ
81071418	Transistor	2SC548 ILJ
81071419	Transistor	112 polJ
81071420	Transistor	2SC548 ILJ
81071421	Transistor	112 polJ
81071422	Transistor	2SC548 ILJ
81071423	Transistor	112 polJ
81071424	Transistor	2SC548 ILJ
81071425	Transistor	112 polJ
81071426	Transistor	2SC548 ILJ
81071427	Transistor	112 polJ
81071428	Transistor	2SC548 ILJ
81071429	Transistor	112 polJ
81071430	Transistor	2SC548 ILJ
81071431	Transistor	112 polJ
81071432	Transistor	2SC548 ILJ
81071433	Transistor	112 polJ
81071434	Transistor	2SC548 ILJ
81071435	Transistor	112 polJ
81071436	Transistor	2SC548 ILJ
81071437	Transistor	112 polJ
81071438	Transistor	2SC548 ILJ
81071439	Transistor	112 polJ
81071440	Transistor	2SC548 ILJ
81071441	Transistor	112 polJ
81071442	Transistor	2SC548 ILJ
81071443	Transistor	112 polJ
81071444	Transistor	2SC548 ILJ
81071445	Transistor	112 polJ
81071446	Transistor	2SC548 ILJ
81071447	Transistor	112 polJ
81071448	Transistor	2SC548 ILJ
81071449	Transistor	112 polJ
81071450	Transistor	2SC548 ILJ
81071451	Transistor	112 polJ
81071452	Transistor	2SC548 ILJ
81071453	Transistor	112 polJ
81071454	Transistor	2SC548 ILJ
8		

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
R145,245 301,302 303,304	0B01889A	Carbon Resistor 100K ERD-25T J		0E00857A	BT Screw M3x8 Phillips Binding Head (1 pos.)
R181,261	0B06585A	Metal Film Resistor 2.1K SN14K2E F		0J04482A	Shield Case D (1 pos.)
C101,103 105,108 116,118 120,121 201,203 205,208 216,218 220,221	0B09223A	Electrolytic Capacitor 1 μ 50V (LN)		0MD4331A	Label CN-22 (1 pos.)
				0J04548A	Dolby NR P.C.B. Shield Plate (1 pos.)
				- Miscellaneous -	
C102,202	0B06557A	Mylar Capacitor 0.015 μ 50V J		0B08000C	Dolby NR P.C.B.
C104,204	0B08408A	PP Capacitor 1800P 100V G		0B01856A	Carbon Resistor 8.2K ERD-25T J
C106,122 208,222	0B06581A	Mylar Capacitor 0.01 μ 50V J		0B06570A	Record Spring Holder (1 pos.)
C107,123 136,207 223,226	0B09240A	PP Capacitor 0.033 μ 100V G		0E00173A	Washer 3mm Toothed Lock (1 pos.)
				0E00232A	E-Ring 2mm (1 pos.)
C109,124 209,224	0B01862A	Electrolytic Capacitor 22 μ 16V		0E00507A	Nut Hex. M3 (1 pos.)
C110,126 210,226	0B01402A	Electrolytic Capacitor 4.7 μ 25V		0E00846A	BT Screw M3x8 Phillips Pan Head (1 pos.)
C111,211	0B06583A	Mylar Capacitor 0.033 μ 50V J		0J04531A	Record Switch Shaft B (1 pos.)
C112,113 212,213	0B01780A	Mylar Capacitor 0.1 μ 50V		JA03922A	Record Arm Ass'y (1 pos.)
C114,115 214,215	0B09587A	Electrolytic Capacitor 0.33 μ 50V (LN) K			
C117,217	0B06594A	Mylar Capacitor 0.03 μ 50V J			
C119,131 219,221	0B01412A	Electrolytic Capacitor 10 μ 16V			
C126,226	0B06585A	Mylar Capacitor 0.13 μ 50V J			
C127,227	0B06796A	Mylar Capacitor 0.047 μ 50V J			
C128,228	0B06914A	Mylar Capacitor 0.15 μ 50V J			
C130,230	0B09163A	Electrolytic Capacitor 10 μ 16V (BP)			
C132,232	0B05894A	Electrolytic Capacitor 470 μ 10V			
	0B08714A	IC Socket (40)			
	- Line Amp. -				
IC301	0B08287A	IC TA75588P-R			
Q107,207	0B01872A	Transistor 2SC945 (L)			
L101,201	0B06578A	Inductor 36mH G			
R148,248	0B01888A	Carbon Resistor 10K ERD-25T J			
R149,161 249,261	0B01857A	Carbon Resistor 1K ERD-25T J			
R150,154 260,264	0B06626A	Carbon Resistor 220K ERD-25T J			
R152,262	0B09507A	Metal Film Resistor 3.57K SN14K2E F			
R153,263	0B06582A	Metal Film Resistor 43.2K SN14K2E F			
R150,280	0B06757A	Metal Film Resistor 1.54K SN14K2E F			
R162,262	0B06836A	Carbon Resistor 10 ERD-25T J			
R306	0B05509A	Carbon Resistor 33K ERD-25T J			
C133,233	0B09409A	PP Capacitor 1800P 100V G			
C134,234	0B09223A	Electrolytic Capacitor 1 μ 50V (LN)			
C135,235	0B01412A	Electrolytic Capacitor 10 μ 16V			
C301,302	0B01400A	Electrolytic Capacitor 100 μ 16V			
SW301	0B07390A	Record Switch 18NS CL116R			
CN22	0B08554A	4P-T Post			
	0E00507A	Nut Hex. M3 (1 pos.)			
	0E00510A	Screw M3x8 Phillips Pan Head (2A) (1 pos.)			

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
	BA04844A	Dolby NR P.C.B. Assy (UK, Australia, 220V Class 2, Others & Japan) Serial Nos.: A31301001 - A31304445	R145,245	OB01889A	Carbon Resistor 100K ERD-25T J
	- RF Dolby NR -		301,302		
IC101,102	OB06338A	IC LA2730	303,304		
201,202			R161,261	OB06685A	Metal Film Resistor 2.1K SN14K2E F
Q101-106	OB01872A	Transistor 2SC945 (L) (12 pcs.)	C101,103	OB09223A	Electrolytic Capacitor 1μ 50V (LN)
201-206			105,106		
ZD101,201	OB06315A	Zener Diode 6.8V XZ668	116,118		
D101,103	OB06181A	Silicon Diode 1SS53	120,121		
106,201			201,203		
203,206			206,208		
D102,202	OB00030A	Germanium Diode 1N60P	216,218		
R101,201	OB06688A	Metal Film Resistor 3.6K SN14K2E F	220,221		
R102,202	OB09420A	Metal Film Resistor 2.2K SN14K2E F	C102,202	OB06557A	Mylar Capacitor 0.015μ 50V J
R103,105	OB01681A	Carbon Resistor 3.3K ERD-25T J	C104,204	OB09409A	PP Capacitor 1800P 100V G
130,203			C106,122	OB06681A	Mylar Capacitor 0.01μ 50V J
205,230			206,222		
R104,106	OB06641A	Carbon Resistor 47K ERD-25T J	C107,121	OB09240A	PP Capacitor 0.033μ 100V G
117,118			136,203		
122,129			223,236		
136,204			C109,124	OB01862A	Electrolytic Capacitor 22μ 16V
206,217			209,224		
216,222			C110,126	OB01402A	Electrolytic Capacitor 4.7μ 25V
229,236			210,226		
R106,144	OB01857A	Carbon Resistor 1K ERD-25T J	C111,211	OB06683A	Mylar Capacitor 0.033μ 50V J
206,244			C112,113	OB01780A	Mylar Capacitor 0.1μ 50V J
R107,136	OB06657A	Metal Film Resistor 13K SN14K2E F	212,213		
207,235			C114,115	OB06667A	Electrolytic Capacitor 0.33μ 50V (LN) K
R109,209	OB06658A	Metal Film Resistor 4.2K SN14K2E F	214,215		
R110,121	OB06776A	Carbon Resistor 1M ERD-25T J	C117,217	OB06694A	Mylar Capacitor 0.03μ 50V J
126,134			C119,131	OB01412A	Electrolytic Capacitor 70μ 16V
147,210			219,231		
221,226			C126,226	OB06668A	Mylar Capacitor 0.12μ 50V J
234,247			C127,227	OB06796A	Mylar Capacitor 0.047μ 50V J
R111,211	OB06615A	Carbon Resistor 22K ERD-25T J	C128,228	OB06914A	Mylar Capacitor 0.15μ 50V J
R112,137	OB06271A	Carbon Resistor 6.2K ERD-25T J	C130,230	OB09163A	Electrolytic Capacitor 10μ 16V (BP)
212,237			C132,232	OB06834A	Electrolytic Capacitor 470μ 10V
R113,114	OB06620A	Carbon Resistor 270K ERD-25T J		OB09714A	IC Socket 16P (4 pcs.)
138,140				- Line Amp. -	
213,214			IC301	OB06267A	IC TA76558P-R
238,240			Q107,207	OB01872A	Transistor 2SC945 (L)
R115,216	OB09335A	Carbon Resistor 680K ERD-25T J	L101,201	OB0676A	Inductor 36mH G
R116,216	OB01683A	Carbon Resistor 16K ERD-25T J	R148,248	OB01888A	Carbon Resistor 10K ERD-25T J
R119,219	OB01848A	Carbon Resistor 4.7K ERD-25T J	R149,151	OB01887A	Carbon Resistor 1K ERD-25T J
R120,220	OB06822A	Carbon Resistor 2.2K ERD-25T J	R180,154		
R123,139	OB06625A	Carbon Resistor 220K ERD-25T J	250,254	OB06625A	Carbon Resistor 220K ERD-25T J
223,239			R162,262		
R124,224	OB06628A	Carbon Resistor 150K ERD-25T J	R163,263	OB06607A	Metal Film Resistor 3.57K SN14K2E F
R127,227	OB06794A	Carbon Resistor 680 ERD-25T J	R160,260	OB06682A	Metal Film Resistor 43.2K SN14K2E F
R128,131	OB06655A	Carbon Resistor 1.6K ERD-25T J	R162,262	OB06757A	Metal Film Resistor 1.54K SN14K2E F
228,231			R306	OB06608A	Carbon Resistor 10 ERD-25T J
R132,232	OB09356A	Metal Film Resistor 4.7K SN14K2E F	C133,233	OB09409A	PP Capacitor 1800P 100V G
R133,233	OB09772A	Metal Film Resistor 3.69K SN14K2E F	C134,234	OB09223A	Electrolytic Capacitor 1μ 50V (LN)
R141,241	OB06743A	Carbon Resistor 27K ERD-25T J	C135,235	OB01412A	Electrolytic Capacitor 10μ 16V
R142,146	OB01898A	Carbon Resistor 10K ERD-25T J	C301,302	OB01400A	Electrolytic Capacitor 100μ 16V
242,246			SW301	OB07390A	Record Switch 16NS CL116R
305			CN22	OB0664A	4P-T Post
R143,243	OB06577A	Carbon Resistor 330 ERD-25T J		OB06607A	Nut Hex. M3 (1 pc.)
				OB0610A	Screw M3x8 Philips Pan Head (2A) (1 pc.)



Notes: Dishes in 18253, 18265, or 151855 unless otherwise specified

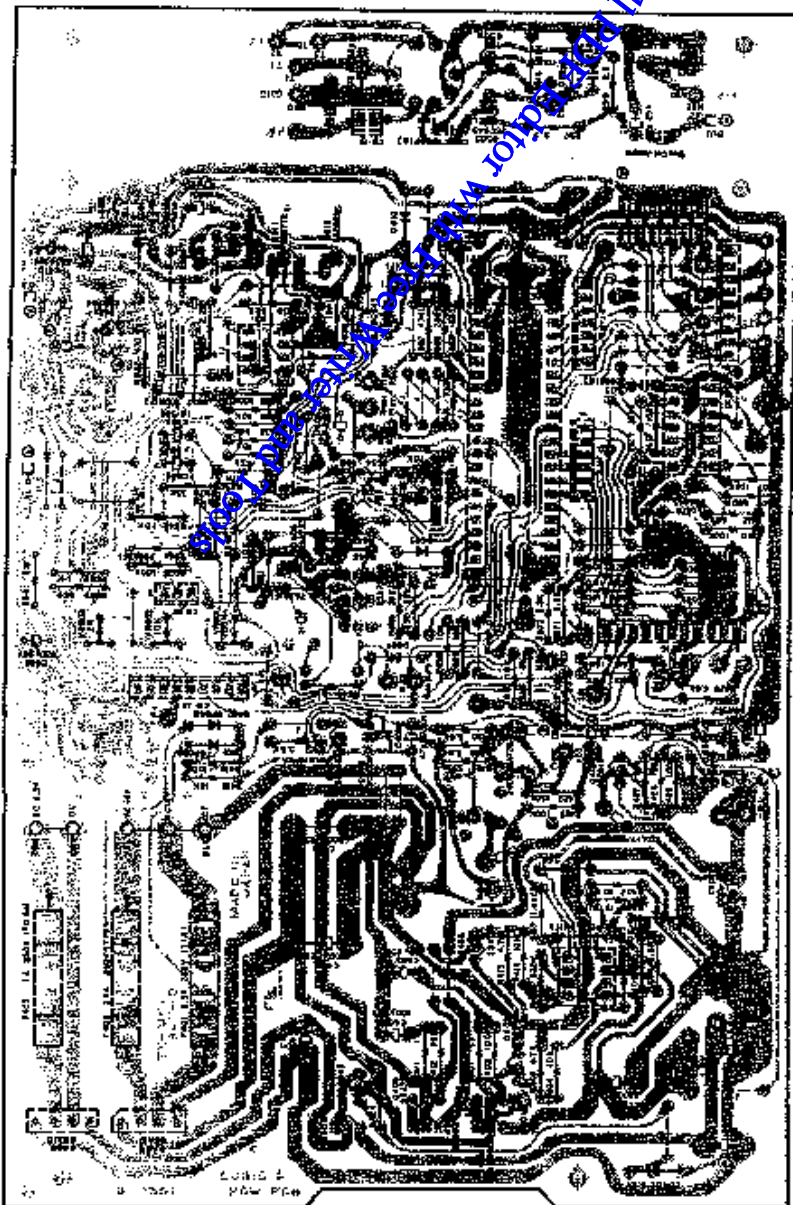


Fig. 7.10.1 Set-Up No.: A37304400 -

Note: Diode is 1S33A, 1S38A, or 1S155 unless otherwise specified.

Reference Ref. No.	Part No.	Description
	840019004	Logic & Power P.C.B. Assy A.L.S.A., Canada & Japan
	840019005	Logic & Power P.C.B. Assy (Main)
	840019006	Logic & Power P.C.B. Assy SUN, Australia & 220V Class 21
		Serial No. A31204466 -
		- Bias Cond -
	080018724	Transistor
	080018725	Diode, Ge. Co. J
	080018726	Full Bias Type Resistor 33 1/2W-25 J
	080018727	Full Bias Type Resistor 33 1/2W-25 J
	080018728	Carbon Resistor 50K 25W-25 J
	080018729	Carbon Resistor 2.2K 1/2W-25 J
	080018730	Full Bias Type Resistor 2.2K 1/2W-25 J
	080018731	Carbon Resistor 50K 25W-25 J
	080018732	Carbon Resistor 2.2K 1/2W-25 J
	080018733	Carbon Resistor 50K 25W-25 J
	080018734	Carbon Resistor 2.2K 1/2W-25 J
	080018735	Carbon Resistor 50K 25W-25 J
	080018736	Carbon Resistor 2.2K 1/2W-25 J
	080018737	Carbon Resistor 50K 25W-25 J
	080018738	Carbon Resistor 2.2K 1/2W-25 J
	080018739	Carbon Resistor 50K 25W-25 J
	080018740	Carbon Resistor 2.2K 1/2W-25 J
	080018741	Carbon Resistor 50K 25W-25 J
	080018742	Carbon Resistor 2.2K 1/2W-25 J
	080018743	Carbon Resistor 50K 25W-25 J
	080018744	Carbon Resistor 2.2K 1/2W-25 J
	080018745	Carbon Resistor 50K 25W-25 J
	080018746	Carbon Resistor 2.2K 1/2W-25 J
	080018747	Carbon Resistor 50K 25W-25 J
	080018748	Carbon Resistor 2.2K 1/2W-25 J
	080018749	Carbon Resistor 50K 25W-25 J
	080018750	Carbon Resistor 2.2K 1/2W-25 J
	080018751	Carbon Resistor 50K 25W-25 J
	080018752	Carbon Resistor 2.2K 1/2W-25 J
	080018753	Carbon Resistor 50K 25W-25 J
	080018754	Carbon Resistor 2.2K 1/2W-25 J
	080018755	Carbon Resistor 50K 25W-25 J
	080018756	Carbon Resistor 2.2K 1/2W-25 J
	080018757	Carbon Resistor 50K 25W-25 J
	080018758	Carbon Resistor 2.2K 1/2W-25 J
	080018759	Carbon Resistor 50K 25W-25 J
	080018760	Carbon Resistor 2.2K 1/2W-25 J
	080018761	Carbon Resistor 50K 25W-25 J
	080018762	Carbon Resistor 2.2K 1/2W-25 J
	080018763	Carbon Resistor 50K 25W-25 J
	080018764	Carbon Resistor 2.2K 1/2W-25 J
	080018765	Carbon Resistor 50K 25W-25 J
	080018766	Carbon Resistor 2.2K 1/2W-25 J
	080018767	Carbon Resistor 50K 25W-25 J
	080018768	Carbon Resistor 2.2K 1/2W-25 J
	080018769	Carbon Resistor 50K 25W-25 J
	080018770	Carbon Resistor 2.2K 1/2W-25 J
	080018771	Carbon Resistor 50K 25W-25 J
	080018772	Carbon Resistor 2.2K 1/2W-25 J
	080018773	Carbon Resistor 50K 25W-25 J
	080018774	Carbon Resistor 2.2K 1/2W-25 J
	080018775	Carbon Resistor 50K 25W-25 J
	080018776	Carbon Resistor 2.2K 1/2W-25 J
	080018777	Carbon Resistor 50K 25W-25 J
	080018778	Carbon Resistor 2.2K 1/2W-25 J
	080018779	Carbon Resistor 50K 25W-25 J
	080018780	Carbon Resistor 2.2K 1/2W-25 J
	080018781	Carbon Resistor 50K 25W-25 J
	080018782	Carbon Resistor 2.2K 1/2W-25 J
	080018783	Carbon Resistor 50K 25W-25 J
	080018784	Carbon Resistor 2.2K 1/2W-25 J
	080018785	Carbon Resistor 50K 25W-25 J
	080018786	Carbon Resistor 2.2K 1/2W-25 J
	080018787	Carbon Resistor 50K 25W-25 J
	080018788	Carbon Resistor 2.2K 1/2W-25 J
	080018789	Carbon Resistor 50K 25W-25 J
	080018790	Carbon Resistor 2.2K 1/2W-25 J
	080018791	Carbon Resistor 50K 25W-25 J
	080018792	Carbon Resistor 2.2K 1/2W-25 J
	080018793	Carbon Resistor 50K 25W-25 J
	080018794	Carbon Resistor 2.2K 1/2W-25 J
	080018795	Carbon Resistor 50K 25W-25 J
	080018796	Carbon Resistor 2.2K 1/2W-25 J
	080018797	Carbon Resistor 50K 25W-25 J
	080018798	Carbon Resistor 2.2K 1/2W-25 J
	080018799	Carbon Resistor 50K 25W-25 J
	080018800	Carbon Resistor 2.2K 1/2W-25 J
	080018801	Carbon Resistor 50K 25W-25 J
	080018802</	

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
C411	0806682A	Mylar Capacitor 0.088µ 50V J	R663	0806676A	Carbon Resistor 560 ERD-25T J
	0806615A	Insu-Lock (2 pcs.)	R664	0806300A	Metal Film Resistor 150K SN14K2E F
	— Logic —		R665,666	0809756A	Metal Film Resistor 330K SN14K2E F
IC601	0806324A	IC LMB402A-052	R667	0809451A	Metal Film Resistor 47K SN14K2E F
IC602	0806317A	IC µPD4030BC	R669	0808218A	Fail Safe Type Resistor 10 RDF-25S J
IC603	0806124B	IC RC4668D	R682	0806676A	Carbon Resistor 470 ERD-25T J
Q601,602	0806100A	Transistor 2SC945 (A)	C601,604	0801402A	Electrolytic Capacitor 4.7µ 25V
609,613			C602	0806652A	Mylar Capacitor 4700P 50V J
Q604,606	0806013A	Transistor 2SA733	C603	0801802A	Mylar Capacitor 2200P 50V J
606,624			C605,608	0801406A	Electrolytic Capacitor 1µ 50V
Q607	0806066A	Transistor 2SD471	C607	0806277A	Ceramic Capacitor 10P 50V J
Q608,621	0806089A	Transistor 2SB584	C608,609	0801502A	Electrolytic Capacitor 330µ 16V
Q610	0806316A	Transistor 2SD682	810		
Q611	0806303A	Transistor 2SB772	C611,612	0806283A	Ceramic Capacitor 220P 50V K
Q603,604	0801909A	Silicon Diode TS1655	CN13,16	0806015A	8P-T Post
605,608			17		
610			CN14	0806843A	7P-T Post
X601	0806908A	Crystal 400kHz 4BR400BT	CN15	0806642A	6P-T Post
VR601	0807267A	Semi-fixed Volume 100K	CN18	0806653A	3P-T Post
VR602	0807266A	Semi-fixed Volume 10K		0806864A	Transistor Mica TO-126 (2 pcs.)
VR603	0807329A	Semi-fixed Volume 2K		0E00807A	Nut Hex. M3 (2 pcs.)
R601,602	0806627A	Carbon Resistor 330K ERD-25T J		0E00624A	Screw M3x10 Phillips Pan Head (2A)
603,604				0J0485A	Heat Sink B (1 pcs.)
605,606				0M04222A	Label CN-15 (1 pcs.)
609,617				0M04223A	Label CN-16 (1 pcs.)
668				0M04224A	Label CN-17 (1 pcs.)
R607,610	0801889A	Carbon Resistor 100K ERD-25T J		0M04230A	Label CN-13 (1 pcs.)
613,616				0M04231A	Label CN-14 (1 pcs.)
618				— Miscellaneous —	
620-627				0802601C	Logic & Power P.C.B.
629,643			F401,402	0806982A	Fuse 2.5A 250V (U.S.A., Canada & Others)
660,691			F401,402	0808061A	Fuse 2.5A 250V (Japan)
R608	0806784A	Carbon Resistor 560K ERD-25T J	F401,402	0808347U	Fuse T1A 250V (UK, Australia & 220V Class 2)
R611,644	0806509A	Carbon Resistor 33K ERD-25T J	F403	0808374A	Fuse 1A 250V (U.S.A., Canada & Others)
645,646			F403	0808886A	Fuse 1A 250V (Japan)
650,670			F403	0808880A	Fuse T500mA 250V (UK, Australia & 220V Class 2)
R612	0806682A	Carbon Resistor 68K ERD-25T J		0808348A	Fuse Clip (UK, Australia & 220V Class 2) (5 pcs.)
R614,615	0801888A	Carbon Resistor 10K ERD-25T J		0E00037A	Earth Lug 8-5 (1 pcs.)
642,648				0E00857A	ST Screw M3x6 Phillips Binding Head (2 pcs.)
652,653				0M03782A	Fuse Label 1A 250V (U.S.A., Canada, Japan & Others) (1 pcs.)
654,666				0M04086C	Fuse Label T500mA (UK, Australia & 220V Class 2) (1 pcs.)
698,699				0M04191A	Fuse Label T1A 250V (UK, Australia & 220V Class 2) (2 pcs.)
R619,671	0806822A	Carbon Resistor 2.2K ERD-25T J	Q401,410	0806255A	Transistor 2SD880 (Y)
672			Q404	0806256A	Transistor 2SB834 (Y, GR)
R628,665	0801682A	Carbon Resistor 6.8K ERD-25T J		0808601A	Transistor Mica TO-220 (3 pcs.)
R631	0806776A	Carbon Resistor 1M ERD-25T J		0808602A	Transistor Bushing TO-220 (3 pcs.)
R632,659	0806671A	Carbon Resistor 2.2M ERD-25T J		0E00807A	Nut Hex. M3 (3 pcs.)
701				0E00808A	Screw M3x10 Phillips Pan Head (3A) (3 pcs.)
R633	0809075A	Carbon Resistor 30K ERD-25T J		QJ04828A	Heat Sink (1 pcs.)
R634	0806680A	Carbon Resistor 18K ERD-25T J			
R635	0809750A	Carbon Resistor 43K ERD-25T J			
R636	0806641A	Carbon Resistor 47K ERD-25T J			
R637	0809263A	Carbon Resistor 12K ERD-25T J			
R638	0806621A	Carbon Resistor 120K ERD-25T J			
R639	0806668A	Carbon Resistor 82K ERD-25T J			
R641	0809217A	Fail Safe Type Resistor 5.6RDF-25S J			
R647,700	0806615A	Carbon Resistor 22K ERD-25T J			
R649	0809751A	Metal Film Resistor 76.8K SN14K2E F			
R651	0806640A	Carbon Resistor 180K ERD-25T J			
R657,666	0809289A	Metal Film Resistor 100K SN14K2E F			
R661	0809472A	Metal Film Resistor 220K SN14K2E F			
R662	0801857A	Carbon Resistor 1K ERD-25T J			

*: Depends on the versions.

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
	BA04640A	Logic & Power P.C.B. Assy (U.S.A., Canada & Others)	C411	0806682A	Mylar Capacitor 0.068μ 50V J
	BA04635A	Logic & Power P.C.B. Assy (Japan)	0906515A	0906515A	Insp-Lock (2 pcs.)
	BA04638A	Logic & Power P.C.B. Assy (UK, Australia & 220V Class 2)	-- Logic --		
		Serial Nos.: A31301001 - A31304445			
	-- Sigs Co. --				
Q505,506	0801872A	Transistor 2SC945 (L)	IC601	0806324A	IC LM6402A-052
T501	0806613A	Coil	IC602	0806317A	IC μPD4030BC
R513	0809295A	Fail Safe Type Resistor 82 RSP-28 J	IC603	0806124B	IC
R514	0809295A	Fail Safe Type Resistor 39 RSP-1/28 J	Q501,502	0906100A	Transistor 2SC945 (A)
R515,516	0806668A	Carbon Resistor 82K ERD-25T J	609,613		
R517,518	0809212A	Fail Safe Type Resistor 2.2RDF-255 J	Q504,505	0809013A	Transistor 2SA733
C501	0809405A	PP Capacitor 0.022μ 100V J	606,624		
C502,503	0809191A	PP Capacitor 4700P 100V G	Q507	0806025A	Transistor 2SD471
C504	0801402A	Electrolytic Capacitor 4.7μ 25V	Q508,521	0806039A	Transistor 2S8564
C506	0809254A	PP Capacitor 0.068μ 100V J	Q510	0806316A	Transistor 2SD882
CN19	0809658A	2P-T Post	Q511	0806303A	Transistor 2SB772
	QJ0460A	Coil Cap (1 pc.)	D603,504	0801909A	Silicon Diode 1S1855
	-- Power Supply --		605,606		
IC401	0806124B	IC RC4558D	610		
Q402,403	0806100A	Transistor 2SC945 (A)	X501	0806906A	Crystal 400kHz 4BR400BT
407,411			Y501	0807267A	Semi-fixed Volume 100K
412,413			Y502	0807266A	Semi-fixed Volume 10K
Q405,406	0806013A	Transistor 2SA733	VR503	0807329A	Semi-fixed Volume 2K
409			R501,502	0806627A	Carbon Resistor 330K ERD-25T J
Q408	0806322A	Transistor 2SC302	603,604		
Q414	0801428A	Transistor 2SA582	606,608		
2D401	0806058A	Zener Diode 5.1V Y2051	609,617		
2D402	0806314A	Zener Diode 6.2V Y2062	668		
D401,402	0806109A	Silicon Diode GP088	R507,510	0801889A	Carbon Resistor 100K ERD-25T J
D404	0801808A	Silicon Diode 1S1855	613,616		
D405,406	0806282A	Diode Bridge DBA10	618		
R401,411	0801857A	Carbon Resistor 1K ERD-25T J	620,627		
424			629,643		
R402,412	0801678A	Carbon Resistor 100 ERD-25T J	660,691		
R403,413	0801846A	Carbon Resistor 4.7K ERD-25T J	R508	0806784A	Carbon Resistor 580K ERD-25T J
R404,414	0801898A	Carbon Resistor 10K ERD-25T J	R511,544	0806508A	Carbon Resistor 33K ERD-25T J
R405,415	0806627A	Carbon Resistor 330K ERD-25T J	645,646		
421			650,670		
R406	0809523A	Metal Film Resistor 13.7K SN14K2E F	R512	0806692A	Carbon Resistor 68K ERD-25T J
R407	0809203A	Metal Film Resistor 10K SN14K2E F	R514,515	0801888A	Carbon Resistor 10K ERD-25T J
R408,416	0801897A	Carbon Resistor 5.6K ERD-25T J	642,648		
420,431			652,653		
R409	0805794A	Carbon Resistor 680 ERD-25T J	654,656		
R410,417	0809128A	Metal Film Resistor 11K SN14K2E F	690,699		
R418,423	0801889A	Carbon Resistor 100K ERD-25T J	R519,571	0805822A	Carbon Resistor 2.2K ERD-25T J
425,426			672		
R419	080660A	Carbon Resistor 18K ERD-25T J	R528,555	0801682A	Carbon Resistor 6.8K ERD-25T J
R427	0806509A	Carbon Resistor 33K ERD-25T J	R531	0805778A	Carbon Resistor 1M ERD-25T J
R428	0806675A	Carbon Resistor 3.9K ERD-25T J	R532,559	0806671A	Carbon Resistor 2.2M ERD-25T J
R429	0806628A	Carbon Resistor 150K ERD-25T J	701		
R430	0806622A	Carbon Resistor 2.2K ERD-25T J	R533	0808078A	Carbon Resistor 30K ERD-25T J
C401,402	0809374A	Electrolytic Capacitor 6800μ 25V	R534	0805560A	Carbon Resistor 18K ERD-25T J
C403,406	0801272A	Electrolytic Capacitor 100μ 25V	R535	0809750A	Carbon Resistor 43K ERD-25T J
C404	0809377A	Electrolytic Capacitor 4700μ 16V	R536	0805641A	Carbon Resistor 47K ERD-25T J
C405	0806654A	Electrolytic Capacitor 2200μ 25V	R537	0809263A	Carbon Resistor 12K ERD-25T J
C407,409	0801397A	Electrolytic Capacitor 1000μ 16V	R538	0805821A	Carbon Resistor 120K ERD-25T J
C408	0806251A	Electrolytic Capacitor 33μ 16V	R539	0806668A	Carbon Resistor 82K ERD-25T J
C410	0801406A	Electrolytic Capacitor 2200μ 16V	R541	0808217A	Fail Safe Type Resistor 5.6RDF-28 J
			R547,700	0806515A	Carbon Resistor 22K ERD-25T J
			R548	0809751A	Metal Film Resistor 76.8K SN14K2E F
			R551	0806640A	Carbon Resistor 180K ERD-25T J
			R557,558	0806269A	Metal Film Resistor 100K SN14K2E F
			R561	0809472A	Metal Film Resistor 220K SN14K2E F
			R562	0801857A	Carbon Resistor 1K ERD-25T J

LX-3

7.11. Main P.C.B. Assy

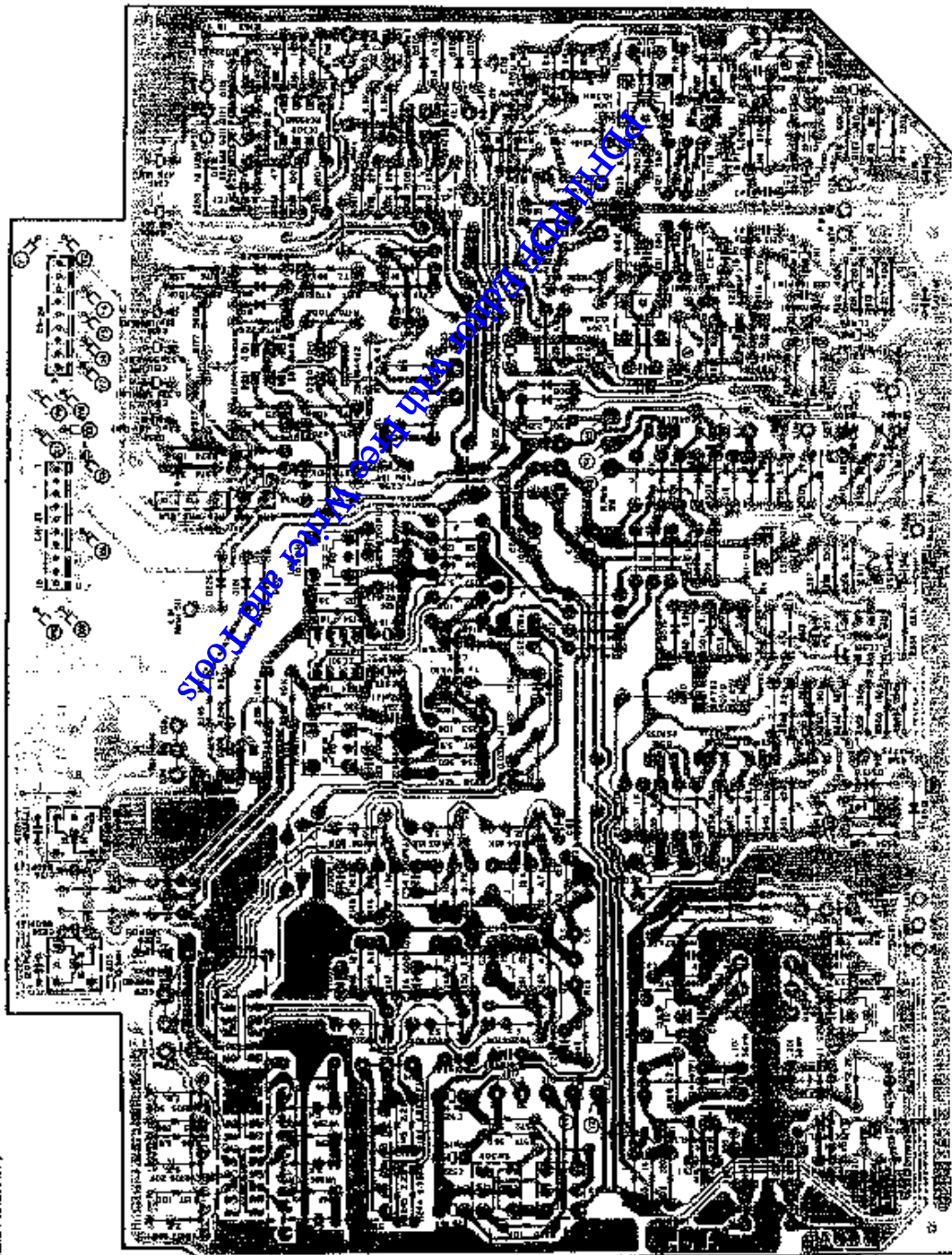


Fig. 7.11.1 Serial No.: AD1310063 -

Note: Drawn to 15063, 15063, or 151505 unless otherwise specified.

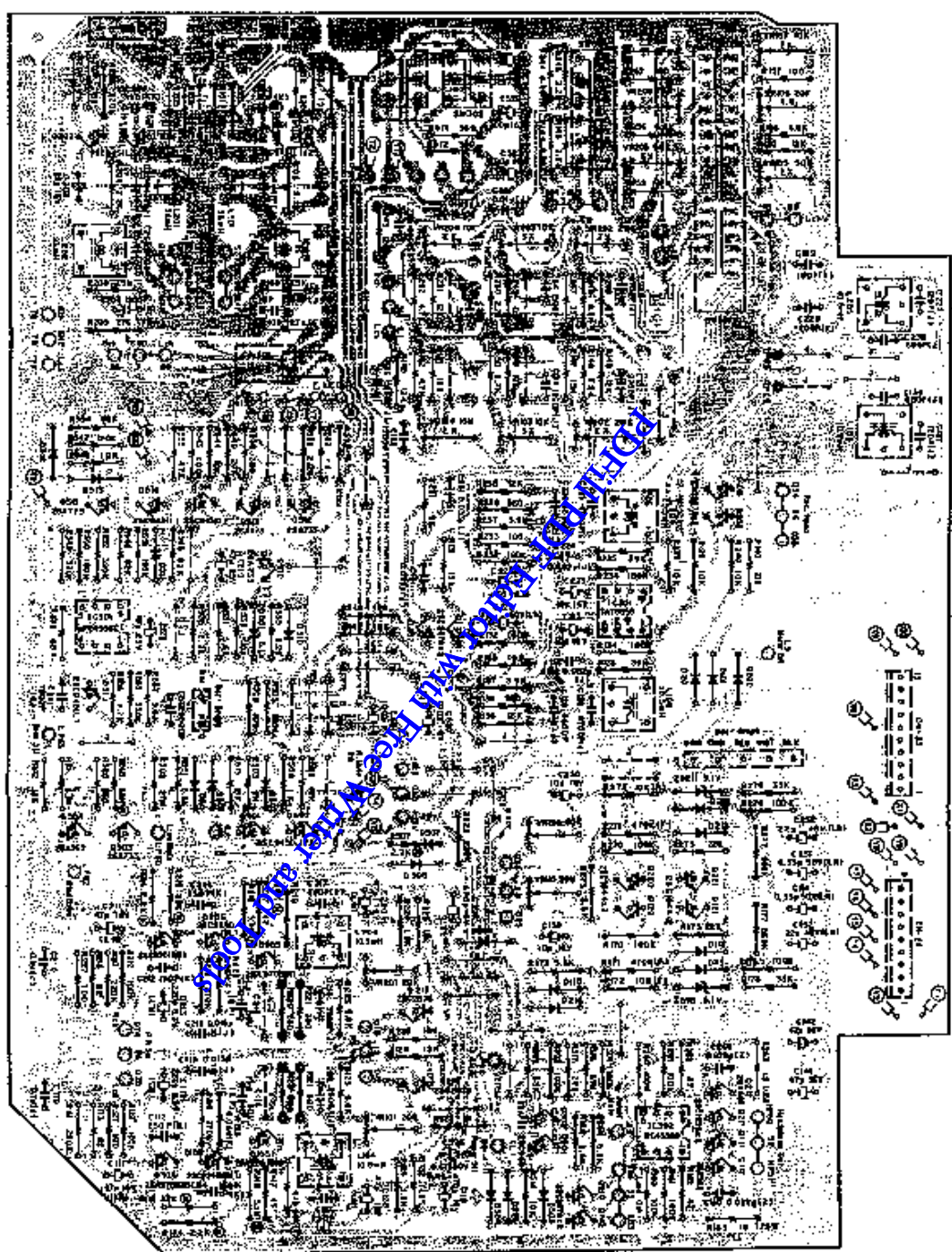


Fig. 7-112 Series Num. A313044B - A3131002

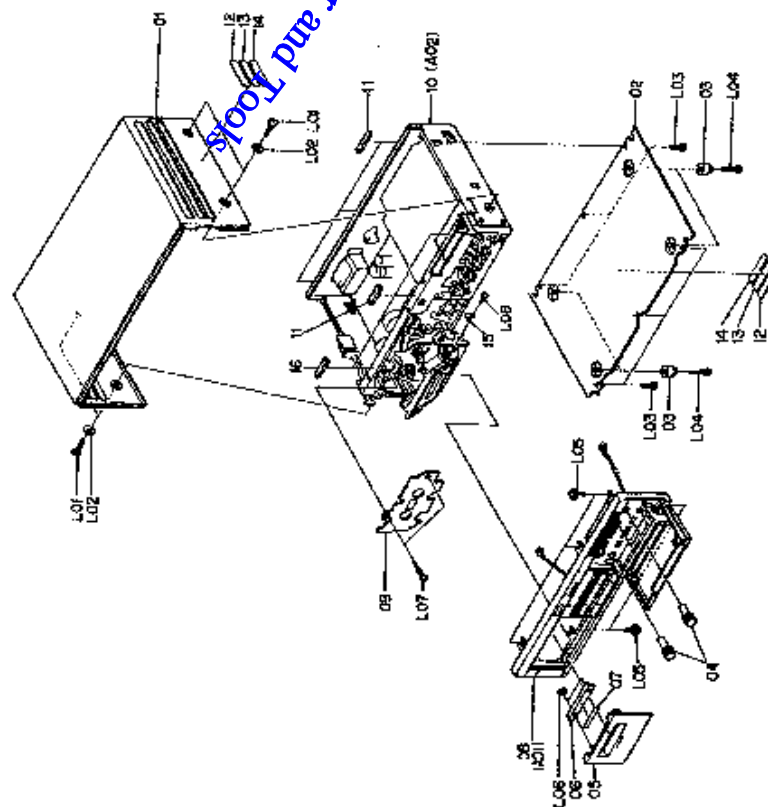
Note: Diode is 1SS33, 1SR10, or 1S1556 unless otherwise specified.

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3. MECHANISM ASS'Y AND PARTS LIST

9.1. Synthesen



==10.8.1

Salvageable Part No.	Part No.	Description	Qty	Salvageable Part No.	Description	Qty
	H404252A	Synthetic (Upper)	1	H404252A	Synthetic (Upper)	1
	H404253A	Synthetic (U.S.A. & Canada)	1	H404253A	Synthetic (U.S.A. & Canada)	1
	H404254A	Synthetic (220V Class 2)	1	H404254A	Synthetic (220V Class 2)	1
	H404255A	Synthetic (UK)	1	H404255A	Synthetic (UK)	1
	H404256A	Synthetic (Australia)	1	H404256A	Synthetic (Australia)	1
	H404257A	Synthetic (Others)	1	H404257A	Synthetic (Others)	1
	Serial No.: A31310082 -					
01	H404258A	Top Cover	1	H404258A	Top Cover	1
02	H404259A	Bottom Cover	1	H404259A	Bottom Cover	1
03	H404260A	Leg T-4	4	H404260A	Leg T-4	4
04	H404261A	Control Volume Knob	1	H404261A	Control Volume Knob	1
05	H404262A	Caseless Case	1	H404262A	Caseless Case	1
06	H404263A	Caseless Case Holder	1	H404263A	Caseless Case Holder	1
07	H404264A	Adhesive Tape	1	H404264A	Adhesive Tape	1
08	H404265A	Front Pistol Assy	1	H404265A	Front Pistol Assy	1
09	H404266A	Cover Pistol Assy	1	H404266A	Cover Pistol Assy	1
10	H404267A	Chassis Assy (Japan)	1	H404267A	Chassis Assy (Japan)	1
	H404268A	Chassis Assy	1	H404268A	Chassis Assy	1
	H404269A	Chassis Assy (U.S.A. & Canada)	1	H404269A	Chassis Assy (U.S.A. & Canada)	1
	H404270A	220V Class 2	1	H404270A	220V Class 2	1
	H404271A	Chassis Assy (UK)	1	H404271A	Chassis Assy (UK)	1
	H404272A	Chassis Assy (Australia)	1	H404272A	Chassis Assy (Australia)	1
	H404273A	Chassis Assy (Others)	1	H404273A	Chassis Assy (Others)	1
11	H404274A	Top Cover	1	H404274A	Top Cover	1
12	H404275A	Bottom Cover	1	H404275A	Bottom Cover	1
13	H404276A	Leg T-4	4	H404276A	Leg T-4	4
14	H404277A	Control Volume Knob	1	H404277A	Control Volume Knob	1
	H404278A	Caseless Case	1	H404278A	Caseless Case	1
	H404279A	Caseless Case Holder	1	H404279A	Caseless Case Holder	1
	H404280A	Adhesive Tape	1	H404280A	Adhesive Tape	1
	H404281A	Front Pistol Assy	1	H404281A	Front Pistol Assy	1
	H404282A	Cover Pistol Assy	1	H404282A	Cover Pistol Assy	1
	H404283A	Chassis Assy (Japan)	1	H404283A	Chassis Assy (Japan)	1
	H404284A	Chassis Assy	1	H404284A	Chassis Assy	1
	H404285A	Chassis Assy (U.S.A. & Canada)	1	H404285A	Chassis Assy (U.S.A. & Canada)	1
	H404286A	220V Class 2	1	H404286A	220V Class 2	1
	H404287A	Chassis Assy (UK)	1	H404287A	Chassis Assy (UK)	1
	H404288A	Chassis Assy (Australia)	1	H404288A	Chassis Assy (Australia)	1
	H404289A	Chassis Assy (Others)	1	H404289A	Chassis Assy (Others)	1
15	H404290A	Top Cover	1	H404290A	Top Cover	1
16	H404291A	Bottom Cover	1	H404291A	Bottom Cover	1
17	H404292A	Leg T-4	4	H404292A	Leg T-4	4
18	H404293A	Control Volume Knob	1	H404293A	Control Volume Knob	1
19	H404294A	Caseless Case	1	H404294A	Caseless Case	1
20	H404295A	Caseless Case Holder	1	H404295A	Caseless Case Holder	1
21	H404296A	Adhesive Tape	1	H404296A	Adhesive Tape	1
22	H404297A	Front Pistol Assy	1	H404297A	Front Pistol Assy	1
23	H404298A	Cover Pistol Assy	1	H404298A	Cover Pistol Assy	1
24	H404299A	Chassis Assy (Japan)	1	H404299A	Chassis Assy (Japan)	1
25	H404300A	Chassis Assy	1	H404300A	Chassis Assy	1
26	H404301A	Chassis Assy (U.S.A. & Canada)	1	H404301A	Chassis Assy (U.S.A. & Canada)	1
27	H404302A	220V Class 2	1	H404302A	220V Class 2	1
28	H404303A	Chassis Assy (UK)	1	H404303A	Chassis Assy (UK)	1
29	H404304A	Chassis Assy (Australia)	1	H404304A	Chassis Assy (Australia)	1
30	H404305A	Chassis Assy (Others)	1	H404305A	Chassis Assy (Others)	1
31	H404306A	Top Cover	1	H404306A	Top Cover	1
32	H404307A	Bottom Cover	1	H404307A	Bottom Cover	1
33	H404308A	Leg T-4	4	H404308A	Leg T-4	4
34	H404309A	Control Volume Knob	1	H404309A	Control Volume Knob	1
35	H404310A	Caseless Case	1	H404310A	Caseless Case	1
36	H404311A</					

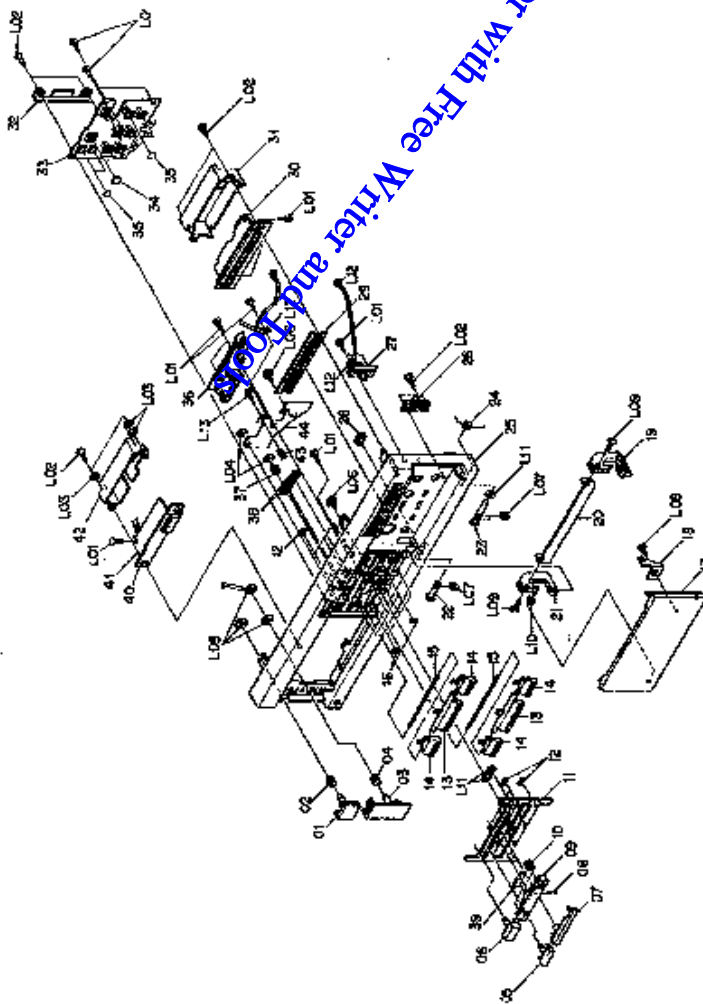


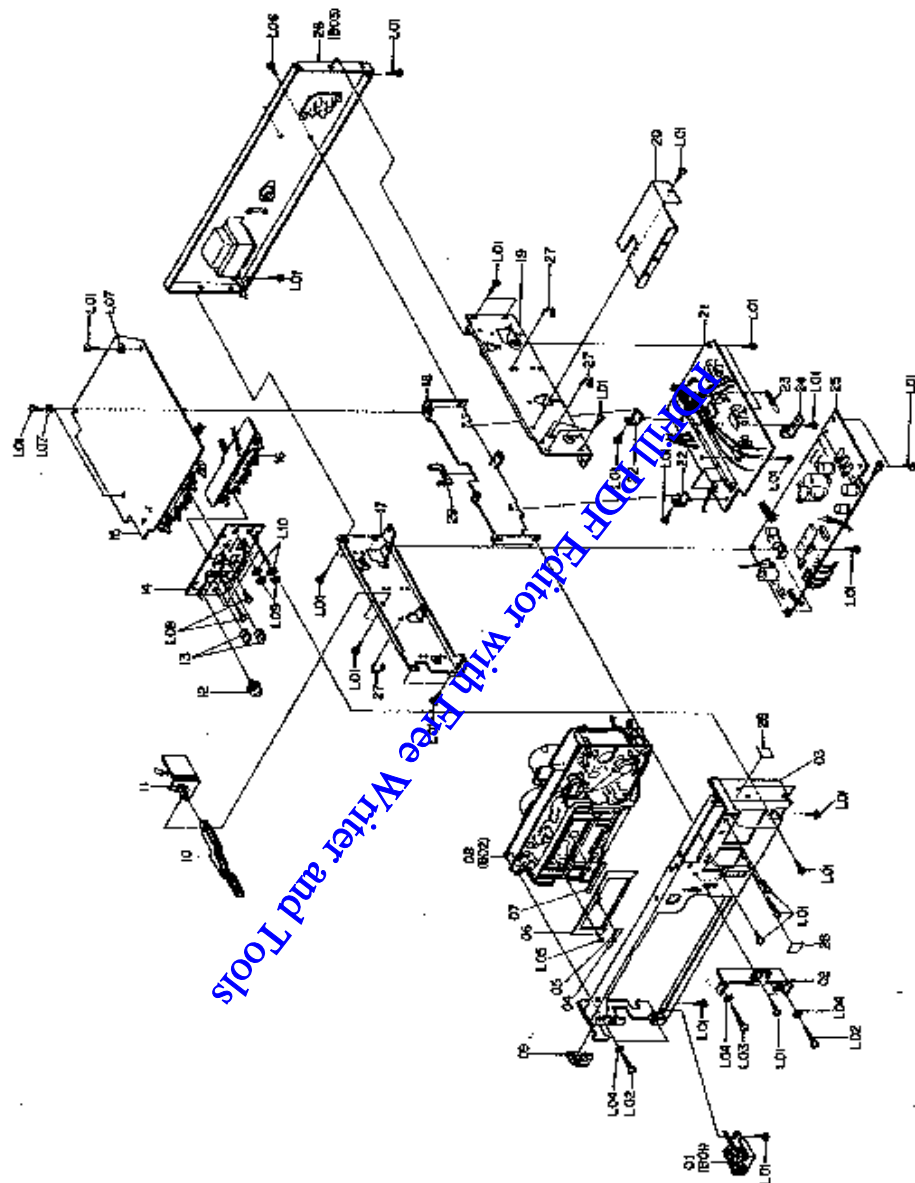
Fig. 8.2.2 Serial Nos.: A31301001 - A31310052

Subassembly Ref. No.	Part No.	Description	Qty	Subassembly Ref. No.	Part No.	Description	Qty
A31	MA040284	Front Panel Assy Serial Nos.: A31310001 - A31310052	1	01040388	Control Button S	4	
	01040339	Power Switch Buttons	1	01040389	Control Button S	2	
	01040340	Power Switch Buttons	1	01040390	Control Button S	2	
	01040341	Power Switch Buttons	1	01040391	Control Button S	2	
	01040342	Power Switch Buttons	1	01040392	Control Button S	2	
	01040343	Power Switch Buttons	1	01040393	Control Button S	2	
	01040344	Power Switch Buttons	1	01040394	Control Button S	2	
	01040345	Power Switch Buttons	1	01040395	Control Button S	2	
	01040346	Power Switch Buttons	1	01040396	Control Button S	2	
	01040347	Power Switch Buttons	1	01040397	Control Button S	2	
	01040348	Power Switch Buttons	1	01040398	Control Button S	2	
	01040349	Power Switch Buttons	1	01040399	Control Button S	2	
	01040350	Power Switch Buttons	1	01040400	Control Button S	2	

Subassembly Ref. No.	Part No.	Description	Qty
A31	01040351	Power Switch Buttons	1
	01040352	Power Switch Buttons	1
	01040353	Power Switch Buttons	1
	01040354	Power Switch Buttons	1
	01040355	Power Switch Buttons	1
	01040356	Power Switch Buttons	1
	01040357	Power Switch Buttons	1
	01040358	Power Switch Buttons	1
	01040359	Power Switch Buttons	1
	01040360	Power Switch Buttons	1
	01040361	Power Switch Buttons	1
	01040362	Power Switch Buttons	1
	01040363	Power Switch Buttons	1

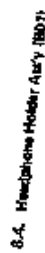
Serial No.	Part No.	Description	Qty	Reference Part No.	Part No.	Description	Qty
16	BA04242K	Amis. Switch P.C.B. Assy	1	11	BA04238A	Power Switch P.C.B. Assy (Japan)	1
17	DA04320A	Cable Clamp L	1		BA04427A	Power Switch P.C.B. Assy (U.S.A. & Canada)	1
18	DA04321C	Cable Clamp	1		BA04428A	Power Switch P.C.B. Assy (U.S.A. & Canada)	1
19	DA04471A	Slip Chain R	1				
20	DA04498H	WPC Shield Plug	1				
21	BA04644A	WPC NIP P.C.B. Assy (Japan, U.K., 220V Class 2, Australia & China)	1	12	GH02690S	Therm. Switch	1
				13	GH04084B	Push Button	1
				14	GH04254A	Push Holder	1
				15	BA04559A	Motor P.C.B. Assy	1
				16	BA04562A	Motor P.C.B. Assy	1
				17	BA04563A	Motor P.C.B. Assy	1
				18	BA04564A	Motor P.C.B. Assy	1
				19	BA04565A	Motor P.C.B. Assy	1
				20	BA04566A	Motor P.C.B. Assy	1
				21	BA04567A	Motor P.C.B. Assy	1
				22	BA04568A	Motor P.C.B. Assy	1
				23	BA04569A	Motor P.C.B. Assy	1
				24	BA04570A	Motor P.C.B. Assy	1
				25	BA04571A	Motor P.C.B. Assy	1
				26	BA04572A	Motor P.C.B. Assy	1
				27	BA04573A	Motor P.C.B. Assy	1
				28	BA04574A	Motor P.C.B. Assy	1
				29	BA04575A	Motor P.C.B. Assy	1
				30	BA04576A	Motor P.C.B. Assy	1
				31	BA04577A	Motor P.C.B. Assy	1
				32	BA04578A	Motor P.C.B. Assy	1
				33	BA04579A	Motor P.C.B. Assy	1
				34	BA04580A	Motor P.C.B. Assy	1
				35	BA04581A	Motor P.C.B. Assy	1
				36	BA04582A	Motor P.C.B. Assy	1
				37	BA04583A	Motor P.C.B. Assy	1
				38	BA04584A	Motor P.C.B. Assy	1
				39	BA04585A	Motor P.C.B. Assy	1
				40	BA04586A	Motor P.C.B. Assy	1
				41	BA04587A	Motor P.C.B. Assy	1
				42	BA04588A	Motor P.C.B. Assy	1
				43	BA04589A	Motor P.C.B. Assy	1
				44	BA04590A	Motor P.C.B. Assy	1
				45	BA04591A	Motor P.C.B. Assy	1
				46	BA04592A	Motor P.C.B. Assy	1
				47	BA04593A	Motor P.C.B. Assy	1
				48	BA04594A	Motor P.C.B. Assy	1
				49	BA04595A	Motor P.C.B. Assy	1
				50	BA04596A	Motor P.C.B. Assy	1
				51	BA04597A	Motor P.C.B. Assy	1
				52	BA04598A	Motor P.C.B. Assy	1
				53	BA04599A	Motor P.C.B. Assy	1
				54	BA04600A	Motor P.C.B. Assy	1
				55	BA04601A	Motor P.C.B. Assy	1
				56	BA04602A	Motor P.C.B. Assy	1
				57	BA04603A	Motor P.C.B. Assy	1
				58	BA04604A	Motor P.C.B. Assy	1
				59	BA04605A	Motor P.C.B. Assy	1
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				70	BA04616A	Motor P.C.B. Assy	1
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				73	BA04619A	Motor P.C.B. Assy	1
				74	BA04620A		



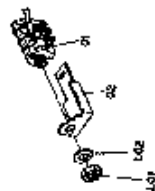


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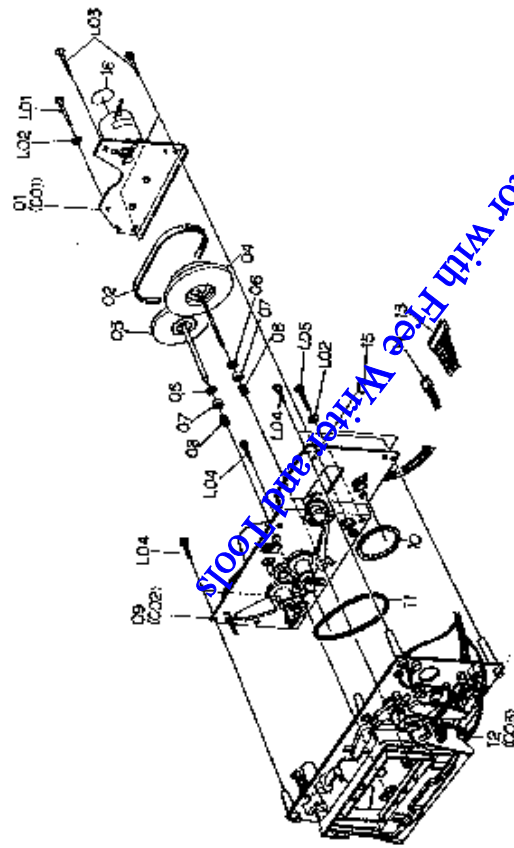
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1	11	BA04028A	Power Button P.C.B. Assy (Japan)	1
1		BA04027A	Power Button P.C.B. Assy (U.S.A. & Canada)	1
1		BA04028A	Power Button P.C.B. Assy (UK, 220V Class 2, Australia & Others)	1
1	12	DA04030A	Trace Button Switch-Knob	1
1	13	DA04030A	Trace Button	1
1	14	DA04032A	Switch Holder	1
1	15	BA04028A	Anti-Switch P.C.B. Assy	1
2	16	BA04028A	Anti-Switch P.C.B. Assy	2
4	17	DA04033A	Slide Channel L	4
4	18	DA04033A	Center Channel	4
4	19	DA04033A	Slide Channel R	4
1	20	DA04035A	RF Switch Pin	1
1	21	BA04044A	Deliver Net P.C.B. Assy (Japan, U.K., 220V Class 2, Australia & Others)	1
1		BA04032A	Deliver Net P.C.B. Assy (U.S.A. & Canada)	1
2	22	DB0771A	Hinge	2
1	23	DA04038A	Record Switch Ring	1
1	24	DA04033A	Record Switch Holder	1
1	25	BA04028A	Logic & Power P.C.B. Assy (Japan, U.K. & Others)	1
25		BA04028A	220V Class 2 & Australia	25
3		BA04040A	Logic & Power P.C.B. Assy (U.S.A., Canada & Others)	3
1	26	HA04026A	Rear Panel Assy (Japan)	1
1		HA04026A	Rear Panel Assy	1
1		HA04026A	(U.S.A. & Canada)	1
1		HA04028A	Rear Panel Assy 220V Class 2	1
1		HA04028A	Rear Panel Assy (U.K.)	1
1		HA04028A	Rear Panel Assy (Australia)	1
1		HA04028A	Rear Panel Assy (Others)	1
20	27	QK04051A	Jack-Plug	20
3	28	QK04051A	Fixed Jack	3
1	29	DA04412A	Four Binding Yokes	1
2	L01	DE04057A	BT Seven M34B Phillips Binding Head	2
1	L02	DE04064A	BT Seven M44B Phillips Binding Head	1
5	L03	DE04064A	BT Seven M44B Phillips Binding Head (Black Chromate)	5
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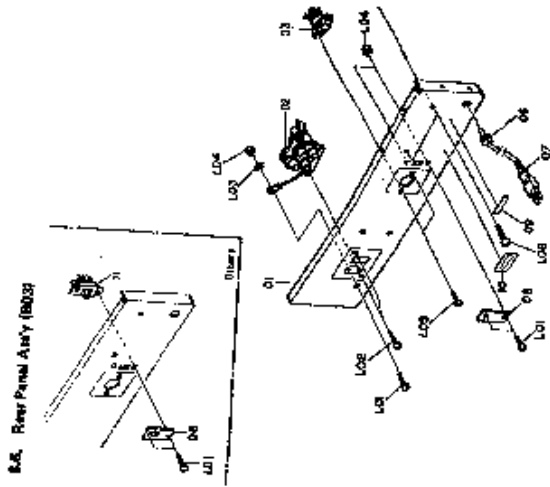
B.A. Henschelwiese Molder Alley 19071



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8.5. Attachment A's y LX-3 (BQ2)



U.S. River Patrol Army (BQ3)



B.7. Flywheel Holder Assy (C07)



Fig. 8.17

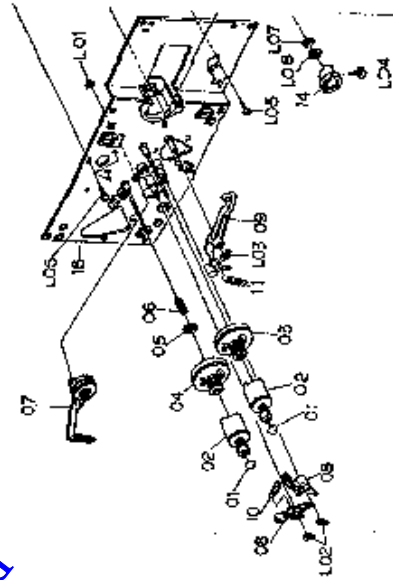
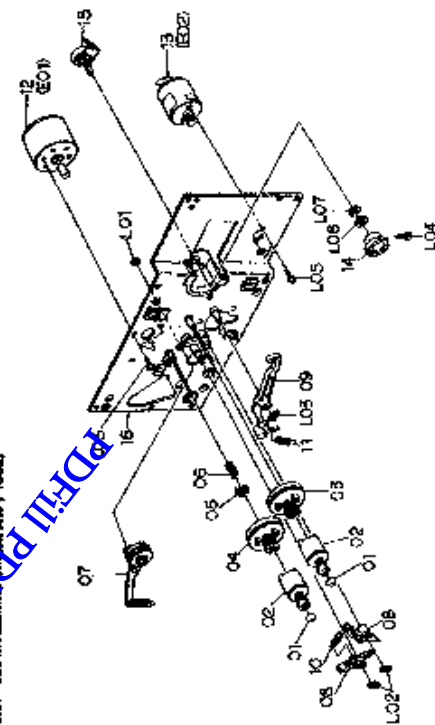
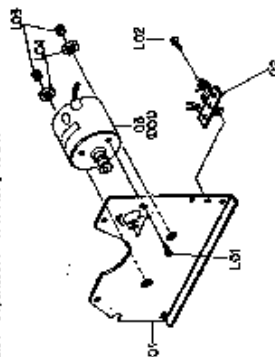
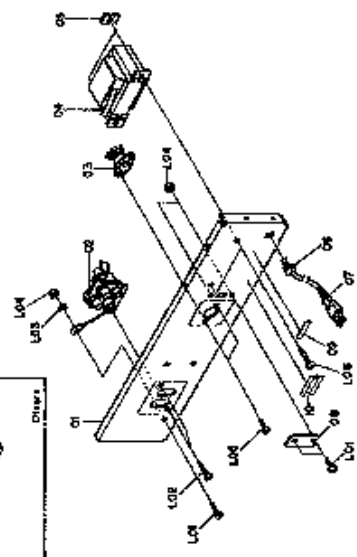
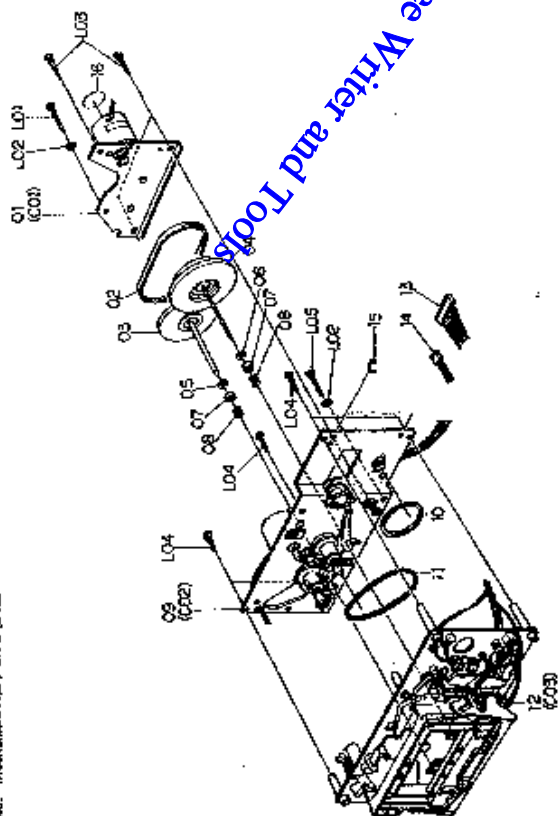
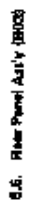
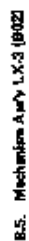


Fig. 8.

Electronic Ref. No.	Part No.	Description	Qty	Electronic Ref. No.	Part No.	Description	Qty
001	AC2B11A	Headphone Winder Assy Serial No.: A31501001 -	1	001	DA00303A	SUB Mechanism Chassis Assy	1
01	000B51A	Headphone Jack	10	002	DC00303B	Control Motor Belt	1
02	0204629C	Headphone Jack Washer	12	003	CA00303B	Control Motor Belt	1
L01	-	Headphone Jack Washer	18	004	0900047A	Wider Mechanism Chassis Assy	1
L02	-	Headphone Jack Washer	14	005	0900047A	Wider Mechanism Chassis Assy	1
		Headphone Jack Nut	17	006	0900047A	Wider Mechanism Chassis Assy	1
		Headphone Jack Nut	17	007	DA00320A	Motor Label	10
002	CA00303A	Headphone Assy L3-3 Serial No.: A31501001 -	2	008	DA00320A	Motor Label	10
01	CA00303A	Headphone Assy L3-3	2	009	0500320A	Label 09-70	1
02	000B505C	Pinwheel Washer Assy	1	010	0500320A	Label 09-70	1
03	CA08108A	Control Belt	1	011	0500320A	Label 09-70	1
04	CA08109A	Control Belt	1	012	0500320A	Label 09-70	1
05	000B521B	Pinwheel Washer Assy B	1	013	0500320A	Label 09-70	1
06	0030020B	Pinwheel Washer 2.1mm	1	014	0500320A	Label 09-70	1
07	0030020B	Pinwheel Washer 2.1mm	1	015	0500320A	Label 09-70	1
08	0030020B	Pinwheel Washer 2.1mm	1	016	0500320A	Label 09-70	1
09	000B524A	Pinwheel Washer 2.1mm	2	017	0500320A	Label 09-70	1
		Pinwheel Washer 2.1mm	2				



Location	Qty	Reference Part No.	Part No.	Description	Qty
1	1	06	C403055A	Bolt Hexagon Hex Head	1
2	1	10	D0000008	Control Motor Bolt	1
3	1	11	C403055B	Control Motor Bolt	1
4	1	12	C403055A	Control Motor Bolt	1
5	1	13	D0000008	Control Motor Bolt	1
6	1	14	D0000008	Control Motor Bolt	1
7	1	15	D0000008	Control Motor Bolt	1
8	1	16	D0000008	Control Motor Bolt	1
9	1	17	D0000008	Control Motor Bolt	1
10	1	18	D0000008	Control Motor Bolt	1
11	1	19	D0000008	Control Motor Bolt	1
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41	1	49	D0000008	Control Motor Bolt	1
42	1	50	D0000008	Control Motor Bolt	1
43	1	51	D0000008	Control Motor Bolt	1
44	1	52	D0000008	Control Motor Bolt	1
45	1	53	D0000008	Control Motor Bolt	1
46	1	54	D0000008	Control Motor Bolt	1
47	1	55	D0000008	Control Motor Bolt	1
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51	1	59	D0000008	Control Motor Bolt	1
52	1	60	D0000008	Control Motor Bolt	1
53	1	61	D0000008	Control Motor Bolt	1
54	1	62	D0000008	Control Motor Bolt	1
55	1	63	D0000008	Control Motor Bolt	1
56	1	64	D0000008	Control Motor Bolt	1
57	1	65	D0000008	Control Motor Bolt	1
58	1	66	D0000008	Control Motor Bolt	1
59	1	67	D0000008	Control Motor Bolt	1
60	1	68	D0000008	Control Motor Bolt	1
61	1	69	D0000008	Control Motor Bolt	1
62	1	70	D0000008	Control Motor Bolt	1
63	1	71	D0000008	Control Motor Bolt	1
64	1	72	D0000008	Control Motor Bolt	1
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66	1	74	D0000008	Control Motor Bolt	1
67	1	75	D0000008	Control Motor Bolt	1
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70	1	78	D0000008	Control Motor Bolt	1
71	1	79	D0000008	Control Motor Bolt	1
72	1	80	D0000008	Control Motor Bolt	1
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74	1	82	D0000008	Control Motor Bolt	1
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85	1	93	D0000008	Control Motor Bolt	1
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87	1	95	D0000008	Control Motor Bolt	1
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108	1	116	D0000008	Control Motor Bolt	1
109	1	117	D0000008	Control Motor Bolt	1
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113	1	121	D0000008	Control Motor Bolt	1
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117	1	125	D0000008	Control Motor Bolt	1
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119	1	127	D0000008	Control Motor Bolt	1
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151	1	159	D0000008	Control Motor Bolt	1
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230	1	238	D0000008	Control Motor Bolt	1
231	1	239	D0000008	Control Motor Bolt	1
232	1	240	D0000008	Control Motor Bolt	

Schematic Ref. No.	Part No.	Description	Qty	Schematic Ref. No.	Part No.	Description	Qty	
B03	HA04260A	Rear Panel Assy (Japan)	1	C01	CA08333A	Flywheel Holder Assy Serial No.: A31301001 -	1	
	HA04261A	Rear Panel Assy (U.S.A. & Canada)	1					
	HA04262A	Rear Panel Assy (220V Class 2)	1					
	HA04263A	Rear Panel Assy (UK)	1		01	OC080131	Flywheel Holder	1
	HA04264A	Rear Panel Assy (Australia)	1		02	OB04042A	Earth Terminal 1L2P	1
	HA04265A	Rear Panel Assy (Others)	1	03	CA08118B	Capstan Motor Assy	1	
		Serial No.: A31301001 -		L01	DE00226A	Screw M2.6x4 Philips Pan Head	3	
				L02	OE00843A	BT Screw M3x5 Philips Binding Head	1	
01	OH04052A	Rear Panel	1	L03	OC08088C	Thrust Screw	2	
02	BA04630A	Pin Jack Assy	1	L04	OC03857A	Lock Nut	2	
03	BA04629A	8P DIN Socket Assy	1					
04	OB08663A	Power Transformer (Others)	1	C02	CA08333A	Sub Mechanism Chassis Assy Serial No.: A31301001 -	1	
	OB08664B	Power Transformer (220V Class 2, UK & Australia)	1					
	OB08665A	Power Transformer (U.S.A. & Canada)	1	01	OC08039B	Reel Hub Head	2	
	OB08666A	Power Transformer (Japan)	1	02	CA08038B	Reel Hub B Supply Assy	2	
05	OC01162B	Bolt Receptacle Plate	2	03	CA08037A	Reel Hub Take-up Assy	1	
06	OB08037U	Cord Bushing (U.S.A., Canada, Japan, 220V Class 2, Australia & Others)	1	04	CA08064A	Reel Hub Supply Assy	1	
				05	CA08039A	Back Tension Assy	1	
	OB08351A	Cord Bushing 4K-4 (UK)	1	06	OC08268A	Back Tension Spring C	1	
	OB08533A	Power Cord (U.S.A. & Canada)	1	07	CA08183A	Idler Assy	1	
	OB08218B	Power Cord (Japan)	1	08	CA08042A	Brake Assy	1	
	OB08093U	Power Cord (220V Class 2)	1	09	OC08030C	Brake Drive Arm	1	
	OB08348A	Power Cord (UK)	1	10	OC08129A	Brake Arm Spring	1	
	OB05241A	Power Cord (Australia)	1	11	OC08128A	Brake Drive Arm Spring	1	
	OB08533A	Power Cord (Others)	1	12	CA08242A	Reel Motor Assy	1	
08	QJ03663C	Switch Cover (U.S.A., Canada, Japan, 220V Class 2, UK & Australia)	1	13	CA08034A	Control Motor Assy	1	
				14	OC08063B	Volume Coupler	1	
	OM03946A	Voltage Selector Lock Plate C (Others)	1	15	OB07248A	Volume Control 10K (B)	1	
				16	CA08194A	Sub Chassis Assy	1	
09	OM03797A	Voltage Label 240V (UK & Australia)	1	L01	DE00698A	E-Ring 2.5mm	1	
				L02	OE00837A	Stopper Ring 3mm	2	
	OM03785A	Voltage Label 220V (220V Class 2)	1	L03	OE00838A	Stopper Ring 4mm	1	
	OM04293A	Voltage Label 120V/220V-240V (Others)	1	L04	OE00858A	BT Screw M2.6x6 Philips Binding Head	1	
				L05	OE00226A	Screw M2.6x4 Philips Pan Head	5	
10	OM03551B	Pass Label	1	L06	-	Volume Nut	(1)	
11	OB07592U	Voltage Selector (Others)	1	L07	-	Volume Washer	(1)	
L01	OE00694A	Screw M3x8 Philips Binding Head (Bronze)	3					
L02	OE00921A	BT Screw M3x8 Philips Binding Head (Black Chromate)	2					
L03	OE00172A	Washer 3mm Toothed Lock	1					
L04	OE00507A	Nut Hex. M3	3					
L05	OE00714A	Screw M2.6x6 Philips Binding Head (Bronze)	2					
L06	OE00853A	Screw M4x10 Philips Binding Head (Black Chromate)	2					
-	OM04320A	Serial Number Plate	1					
-	OM04113A	LA Label (U.S.A. & Canada)	1					
-	OM04185A	FSZ Label (220V Class 2)	1					
-	OM04263A	EP Label (220V Class 2)	1					
-	OM03844B	BS Code Label (UK)	1					
-	QJ03644A	Chobert Rivet	2					

Schematic Ref. No.	Part No.	Description	Qty	Schematic Ref. No.	Part No.	Description	Qty
C03	CA08338A	Main Mechanism Chassis Assy Serial No.: A31301001 -	1	D01	CA08118B	Capstan Motor Assy Serial No.: A31301001 -	1
G1	CA08350A	Cassette Case Holder L Assy	1	01	DC08218A	Capstan Motor	1
02	OC08181A	Lid Arm Spring Tube	1	02	OC08212C	Capstan Motor Pulley	1
03	CA08022A	Cassette Case Holder R Assy	1	03	OM04077A	Motor Seal	1
04	CA08349A	Cassette Case Assy	1				
05	CA08337A	Head Mount Base Assy	1	E01	CA08242A	Reel Motor Assy Serial No.: A31301001 -	1
06	DC08121A	Supply Pressure Roller Spring	1				
07	OC08250A	Supply Pressure Roller Spring B	1	01	OC08332A	Reel Motor	1
08	OC08313A	Pressure Roller Arm Bushing	2	02	OC08333F	Reel Motor Pulley	1
09	CA08063B	Supply Pressure Roller Assy	1	03	SC08290A	Ceramic Capacitor 0.01μ 50V Z	1
10	OC08122B	Supply Pressure Roller Thrust Spring	1				
11	CA08079B	Take-up Pressure Roller Assy	1	E02	CA08034A	Control Motor Assy Serial No.: A31301001 -	1
12	OC08183B	Take-up Pressure Roller Thrust Spring	1				
13	CA08338A	Head Base Assy	1	01	OC08137A	Control Motor	1
14	OC08182A	Pressure Roller Drive Bar B	1	02	OC08064A	Control Motor Pulley	1
15	OC08088B	Head Base Roller	3	03	OB08292A	Ceramic Capacitor 0.1μ 50V Z	1
16	OC08060B	Record Sensor	1	04	OM03985A	Control Motor Label	1
17	OC08061E	Cassette Hold Arm	1	05	OM03985A	Motor Seal B	1
18	OC08120A	Cassette Hold Arm Spring	1				
19	CA08198A	Back Tension Assy	1				
20	OC08254A	Back Tension Arm Collar	1				
21	CA08027A	Head Base Drive Arm Assy	1				
22	OC08143C	Head Base Drive Arm Spring	1				
23	CA08025A	Record Arm Assy	1				
24	OC08038D	Record Trigger	1				
25	OC08112A	Flip-Flop Spring	1				
26	CA08028A	Pressure Roller Drive Arm Assy	1				
27	CA08353A	Auto Shut-off Assy	1				
28	OC08118A	Record Protector	1				
29	OC08194C	Damper Lock Arm	1				
30	OC08163A	Damper Lock Arm Spring Tube	1				
31	OC08118A	Record Arm Spring	1				
32	CA08030A	Pneumatic Damper Assy	1				
33	CA08023A	Supply Capstan Flange Assy	1				
34	CA08024A	Take-up Capstan Flange Assy	1				
35	OC08185A	Cam Drive Gear	1				
36	OC08029H	Control Cam	1				
37	OC08117A	Counter-Load Arm Spring	1				
38	OC08152A	Counter-Load Arm Spring Tube	1				
39	CA08028A	Counter-Load Arm Assy	1				
40	OC08123B	Record Switch Linkage Wire	1				
41	OC08037E	Record Arm B	1				
42	OC08118A	Record Arm Spring	1				
43	CA08347A	Main Chassis Assy	1				
L01	OE00837A	Stopper Ring 3mm	11				
L02	OE00834A	BT Screw M3x30 Phillips Pan Head	2				
L03	OE00831A	BT Screw M3x10 Phillips Pan Head	3				
L04	OE00254A	Washer 3.1mm	2				
L05	OE00222A	E-Ring 2mm	2				
L06	OE00875A	BT Screw M2.6x8 Phillips Pan Head	8				
L07	OE00178A	Washer 3mm	2				
L08	OE00879A	BT Screw M2x15 Phillips Pan Head	1				
L09	OE00838A	Stopper Ring 4mm	3				
L10	OE00846A	BT Screw M3x8 Phillips Pan Head	3				
L11	OE00895A	Earth Lug 3mm	2				
L12	OE00858A	BT Screw M2.6x6 Phillips Binding Head	1				
L13	OC08255A	Washer 2.5mm	1				

8.9. Main Mechanism Chassis Assy (D01)

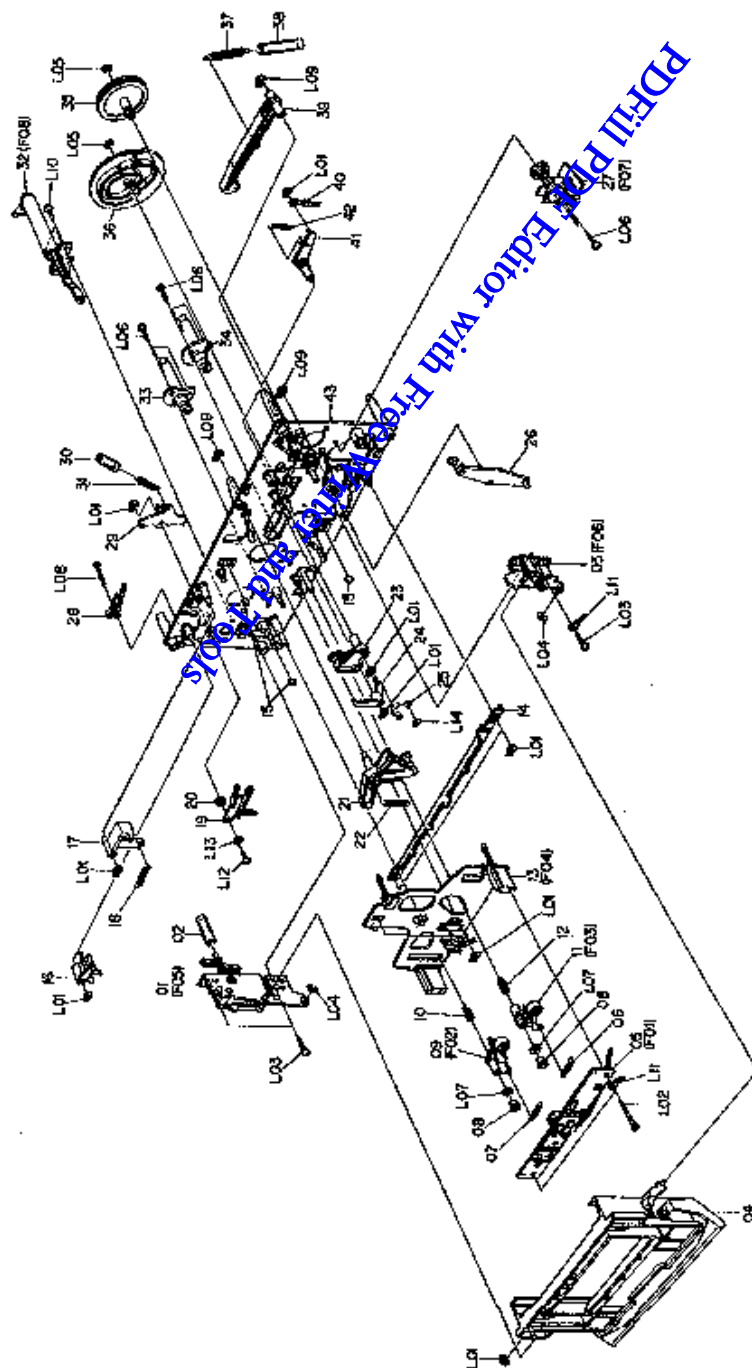


Fig. 8.9

8.10. Capstan Motor Assy (D01)

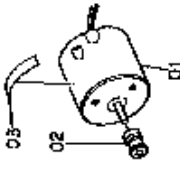


Fig. 8.10

8.11. Reel Motor Assy (D01)

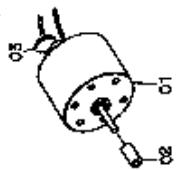


Fig. 8.11

8.12. Coaxial Motor Assy (D01)

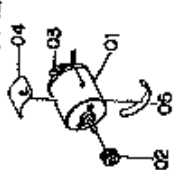


Fig. 8.12



3.14. Supply Premium Higher After IPO?



A.15. Take-up Pressure Rating Assy (FQ3)



§. 16. Head Base Array (HBA)



8.17. Censoria Case Holding & Awp'y (F064)



2.10. Cemento Base Holder P AH-V (E08)

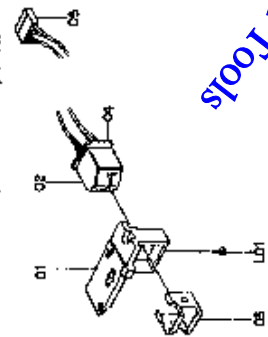


B.10. Auto Shutoff Assy (F02)

5

10. EQ. AMP. FREQUENCY RESPONSE

8.21. RP-95 Record/Playback Head Assy (H01)



8.20. Pneumatic Dumper Assy (F08)

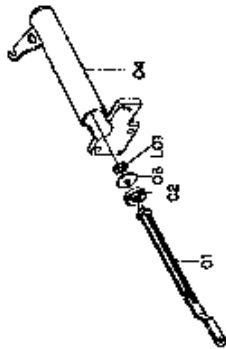


Fig. 8.20

Fig. 8.21

Subassembly Ref. No.	Part No.	Description	Qty	Subassembly Ref. No.	Part No.	Description	Qty
F08	CA00030A	Pneumatic Dumper Assy (F08)	1	H01	CA00030A	RP-95 Record/Playback Head Assy (H01)	1
01	DC000000	Dumper Platen	1	01	DC00011A	Head Plene	1
02	DC000100	Dumper Ring	1	02	DC00011A	RP-95 Record/Playback Head	1
03	DC000100	Dumper Plene	1	03	DC00011B	Pad Lifter BE	1
04	DC000100	Sylinder	1	04	DC00011C	Head Terminus P.C.B.	1
L01	DC000100	Stopper Ring 08 2mm	1	05	DC00011D	Head Connector	1
				L01	DC00011E	Screw M3.7x4 Fillow Pin Head	1
					CA00030A	Label CH-32	1

Fig. 10.1

10.2. Record Current Frequency Response

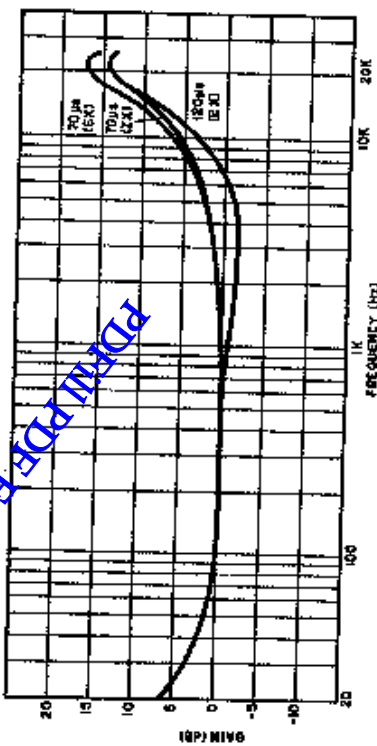


Fig. 10.2

9. OVERALL TIMING CHART

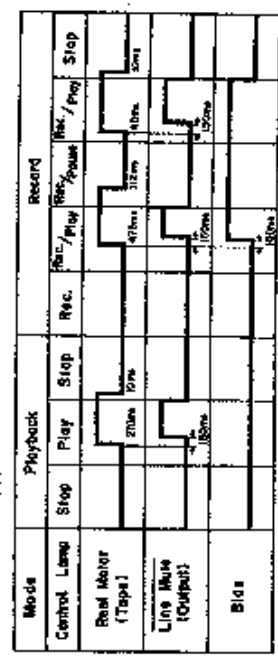


Fig. 9

LX-3

11. BLOCK DIAGRAMS

11.1. Amplifier Section

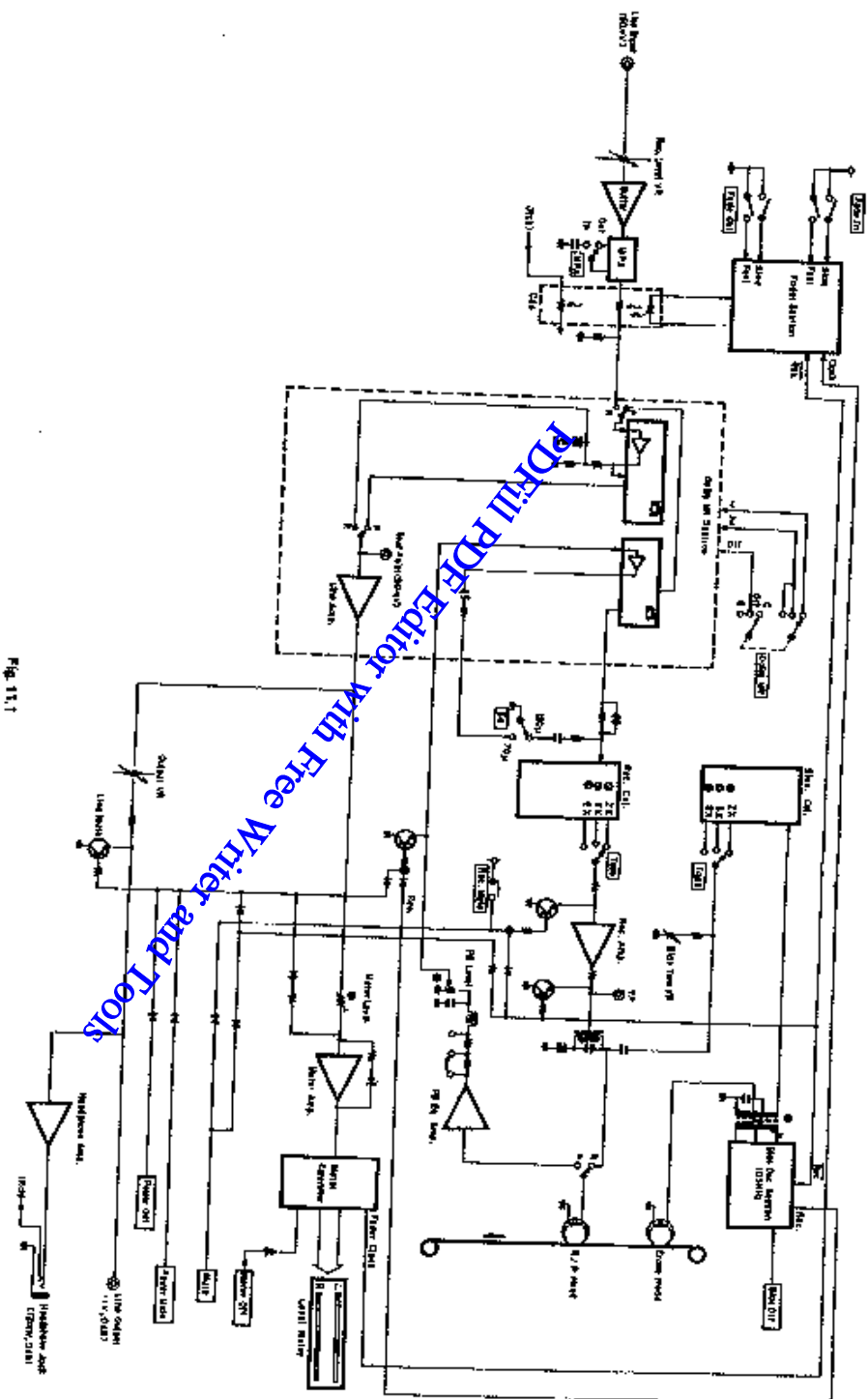
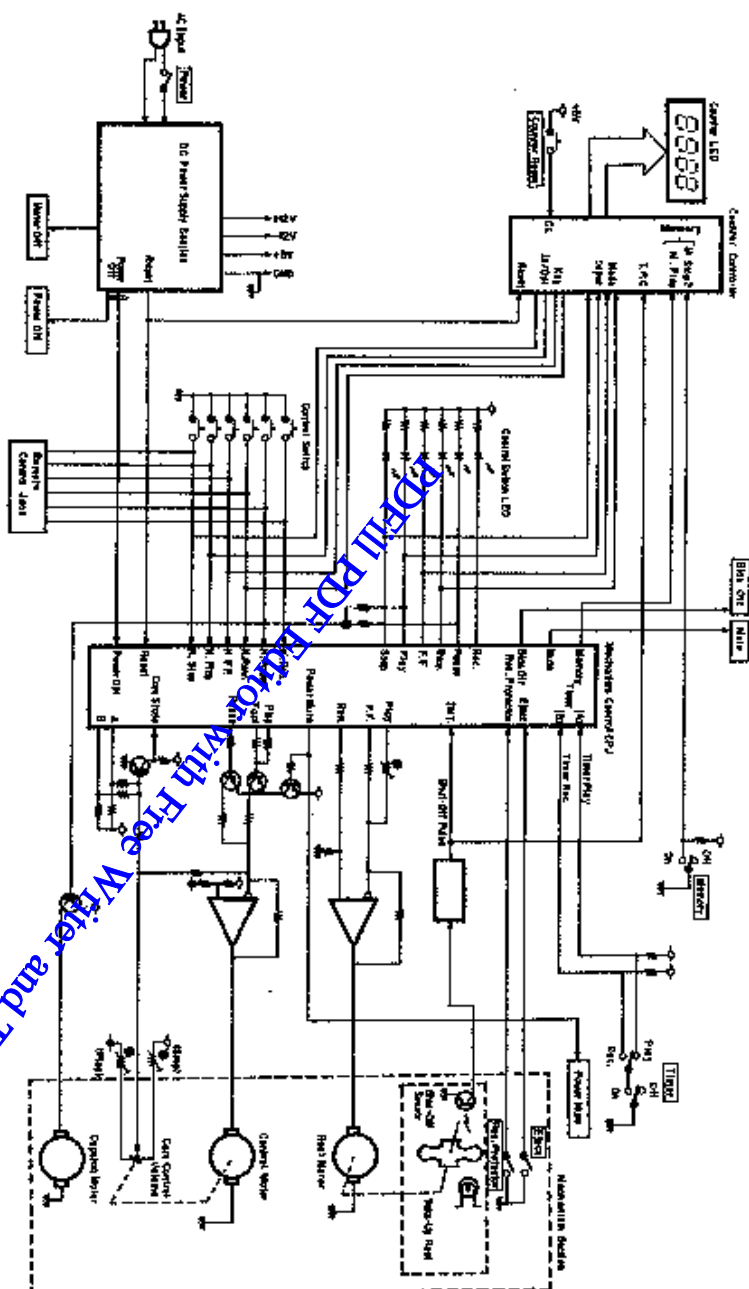


Fig. 11.1



12. WIRING DIAGRAM

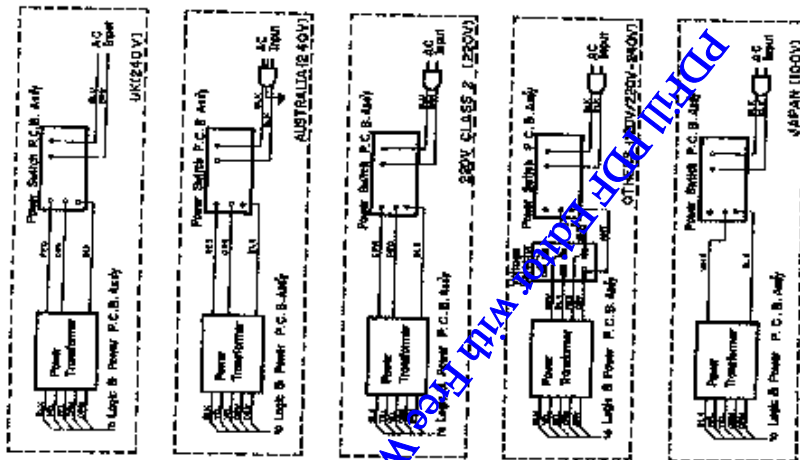


Fig. 12.1

Notes: 1. Table of wire colors

BLK	Black
BLU	Blue
ORN	Orange
GRY	Gray
GRN	Green
RED	Red
BWN	Brown
YEL	Yellow
WHT	White
VIO	Violet

2. Wire size color is shown in 1.
3. Component side view of the P.C.B. is illustrated unless otherwise specified.

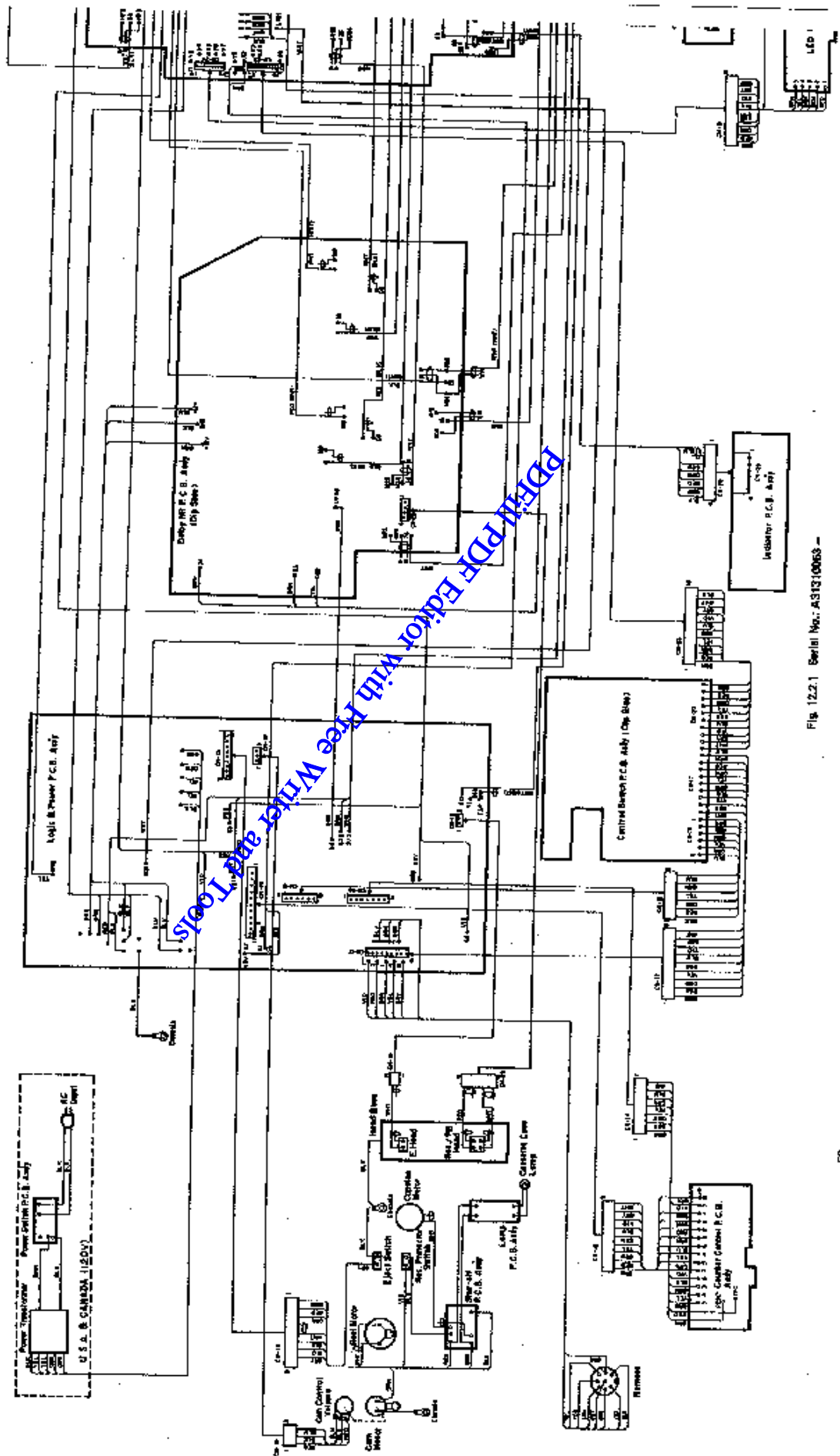


Fig. 12.2.1 Serial No.: A31310063 -

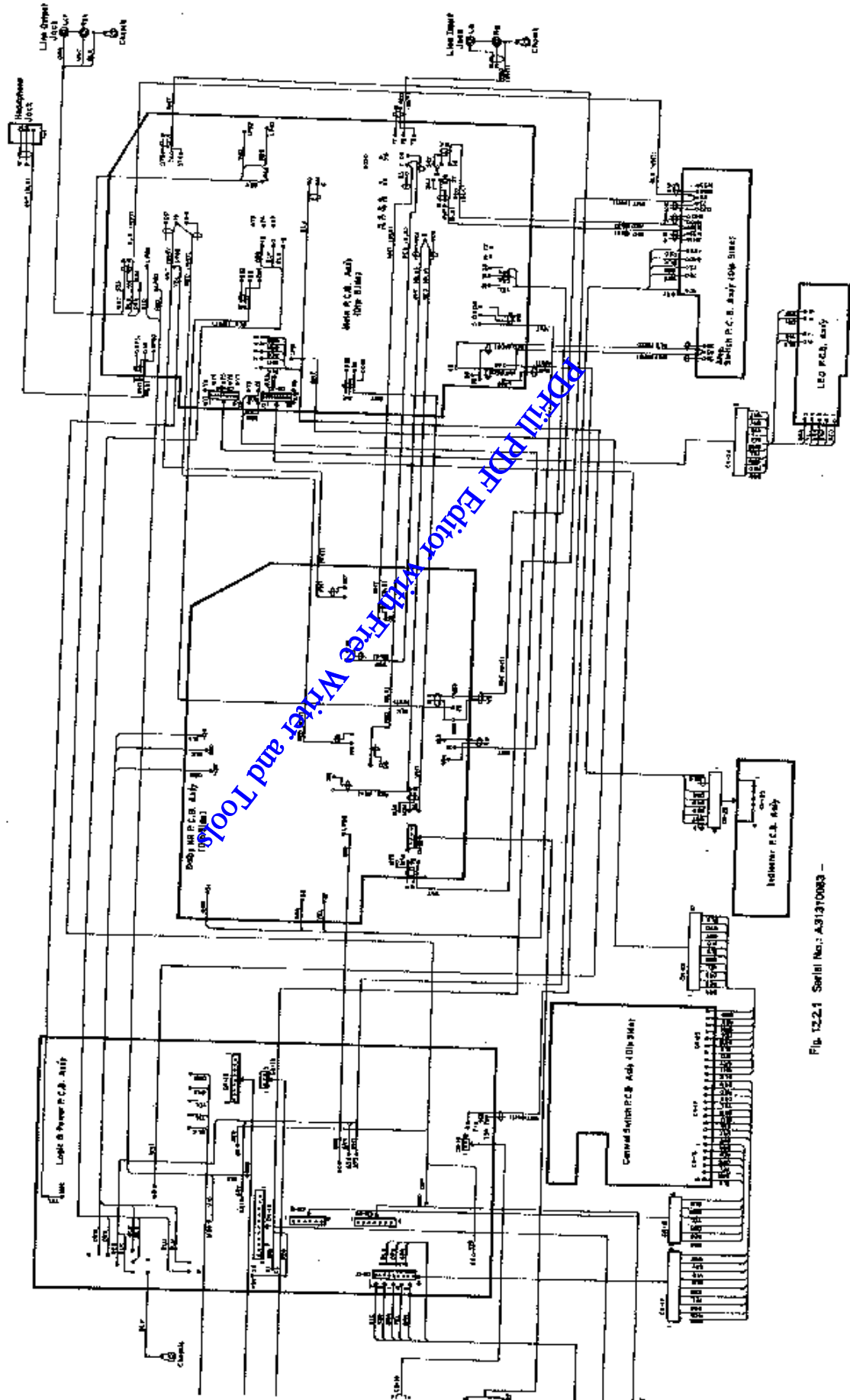


Fig. 13.2.1 Serial No.: A31310003 -

Fig. 12.2.2 Serial Nos: A31301001 - A313100E2

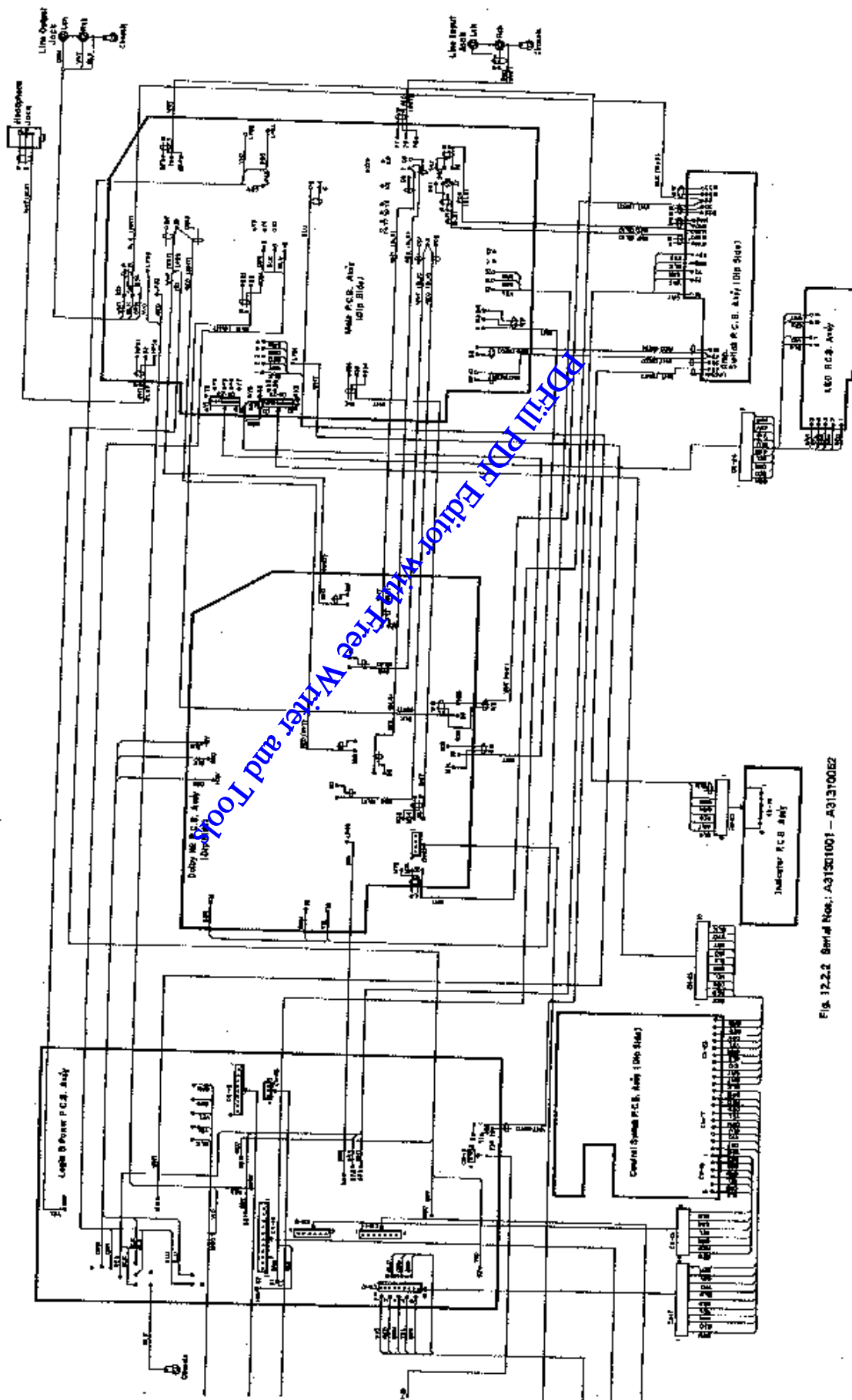


Fig. 12.2.2 Serial Nos. A31301001 - A3131002

13. SCHEMATIC DIAGRAMS

13.1. Mechanical Control of Rotation

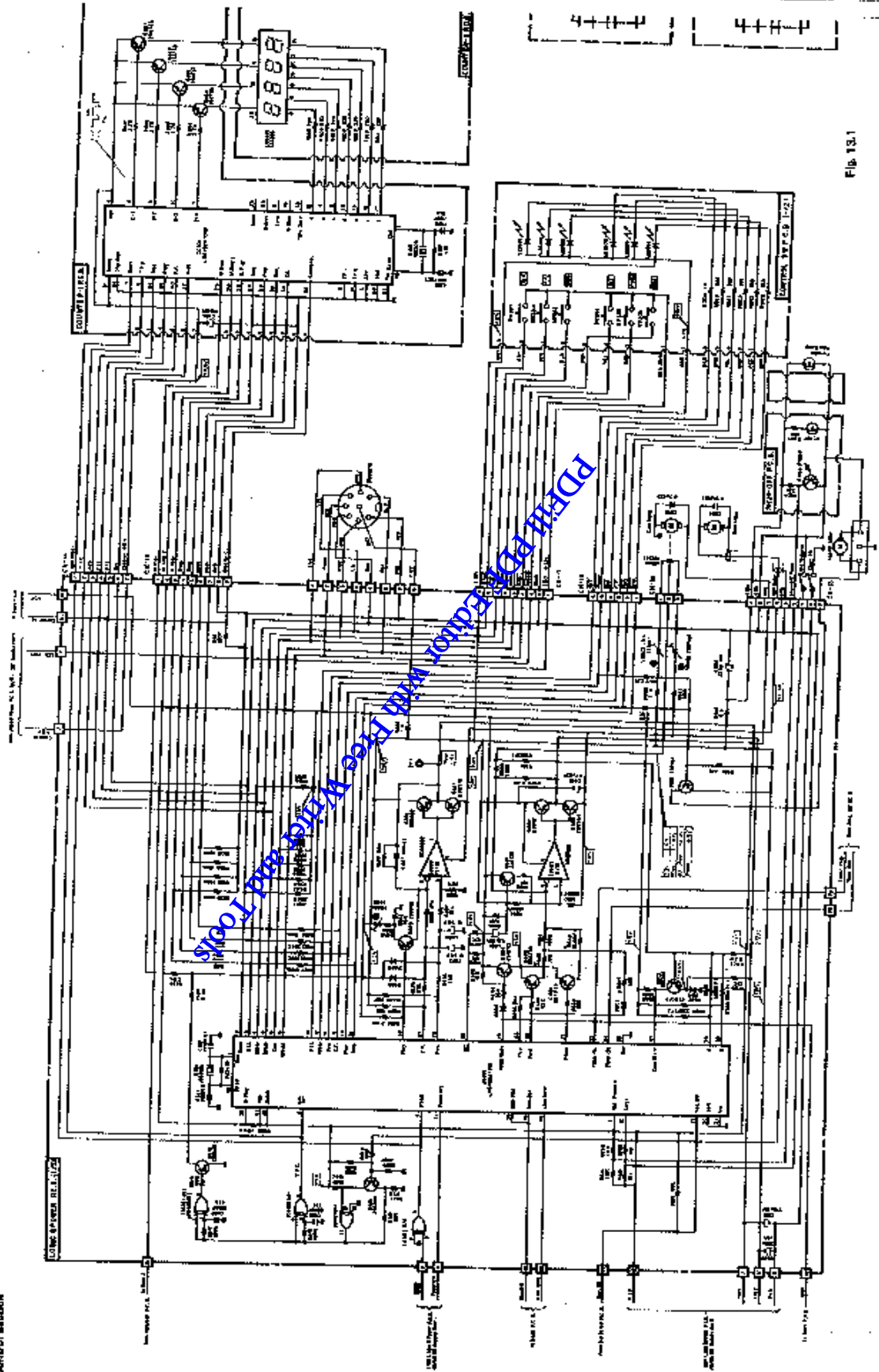


Fig. 13.1

Models: 1. Diode 11 15580, 15583, or 151806 unless otherwise specified.
2. Resistor and capacitor marked with * show typical value.

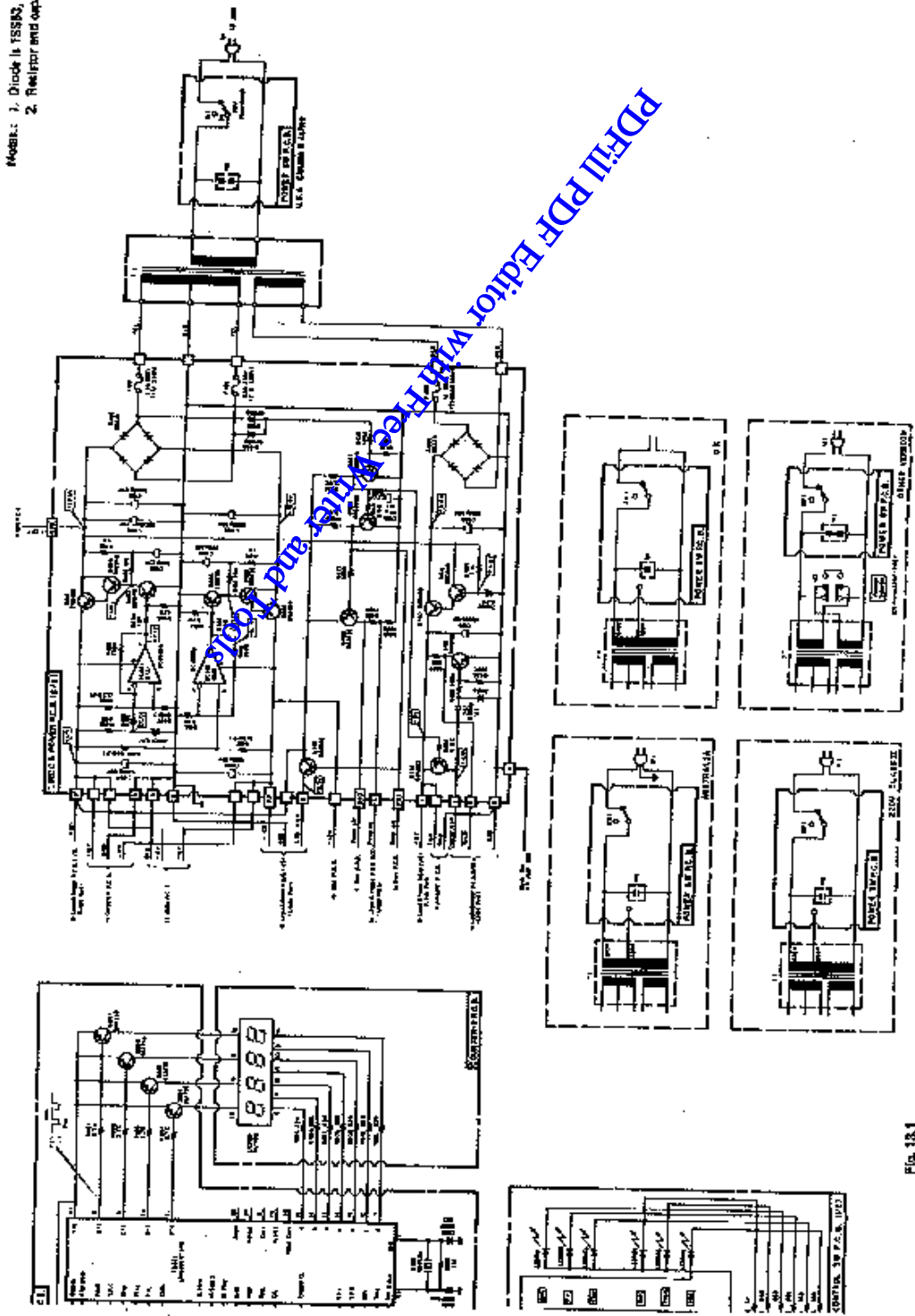
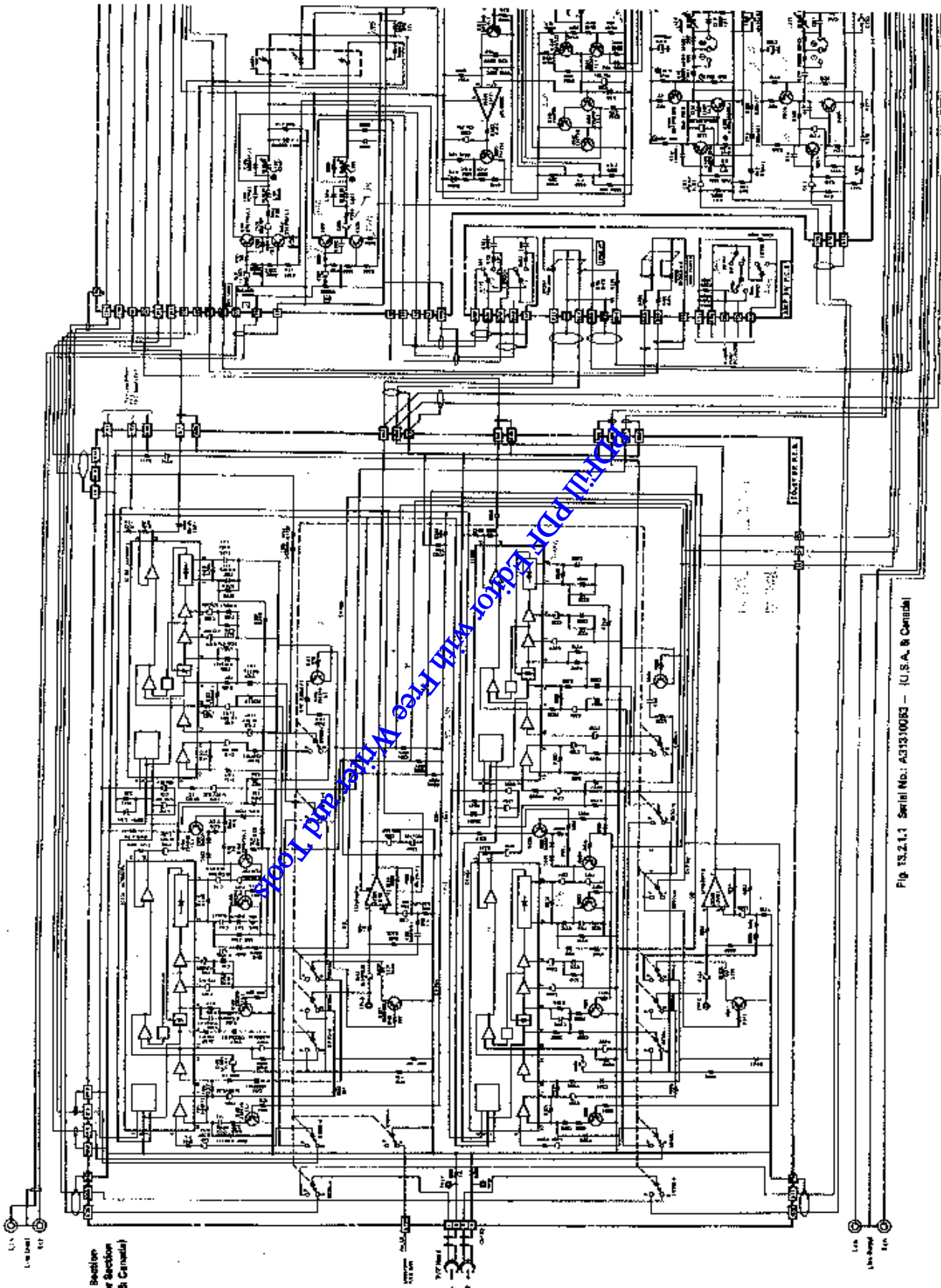


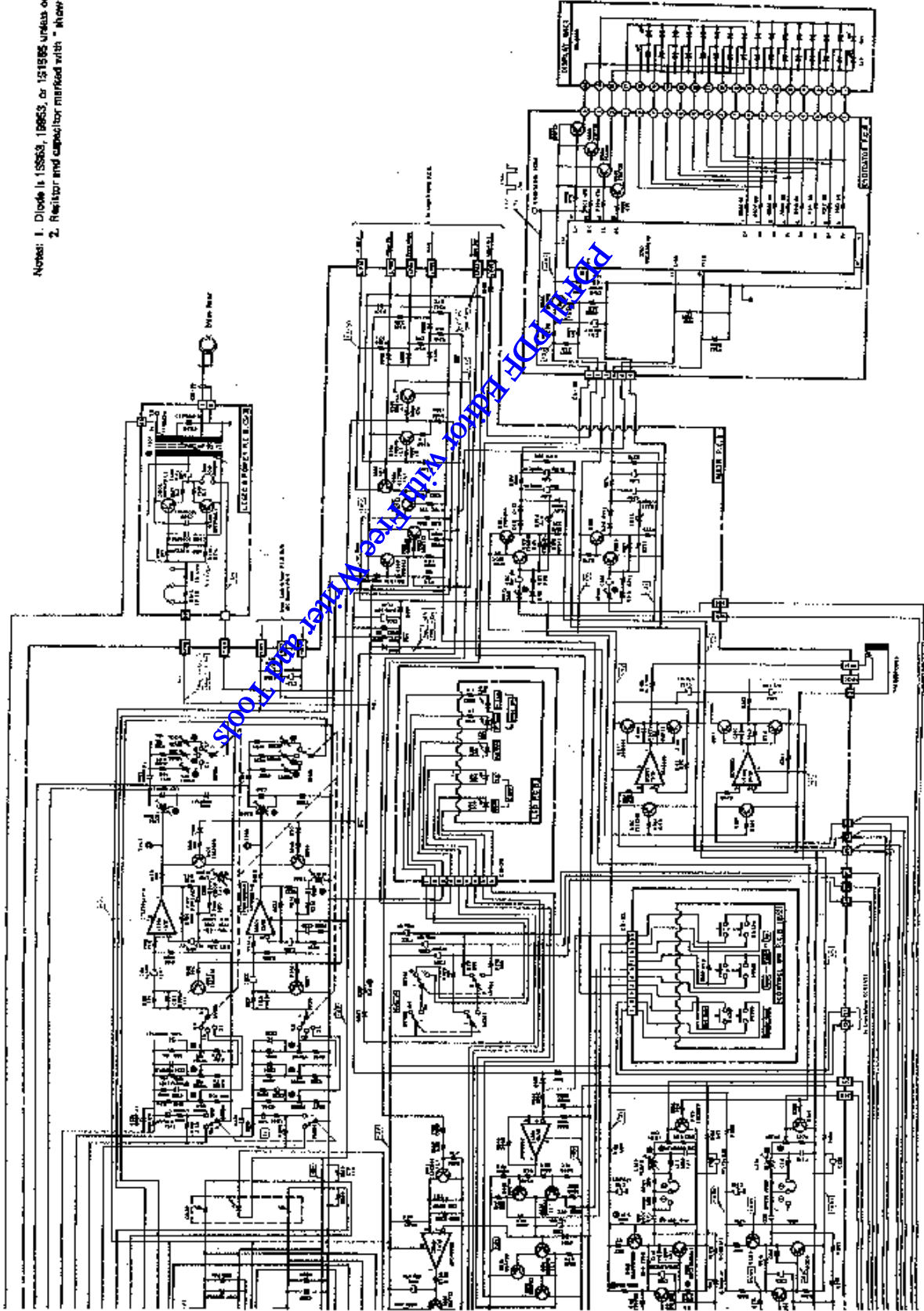
Fig. 13.1



13.2 Amplifier Section
13.2.1 Amplifier Section
(U.S.A. & Canada)

Fig. 13.2.1.1 Serial No. A31310053 - (U.S.A. & Canada)

- Notes: 1. Diode is 1SS83, 1B653, or 1S1985 unless otherwise specified.
2. Resistor and capacitor marked with " " show typical value.



13.2.2. Amplifier Section
(UK, Australia,
220V Class 2,
Others & Japan)

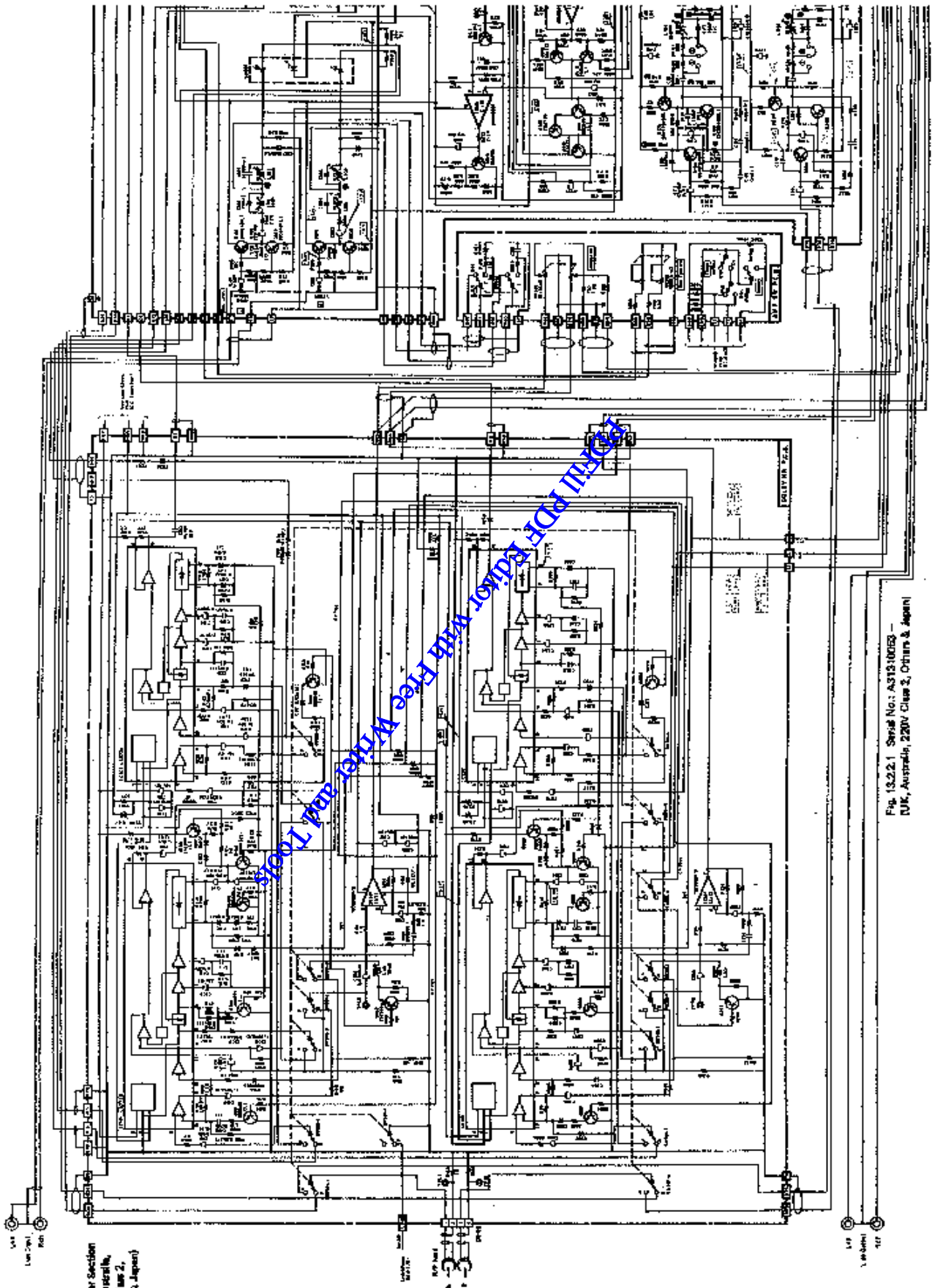
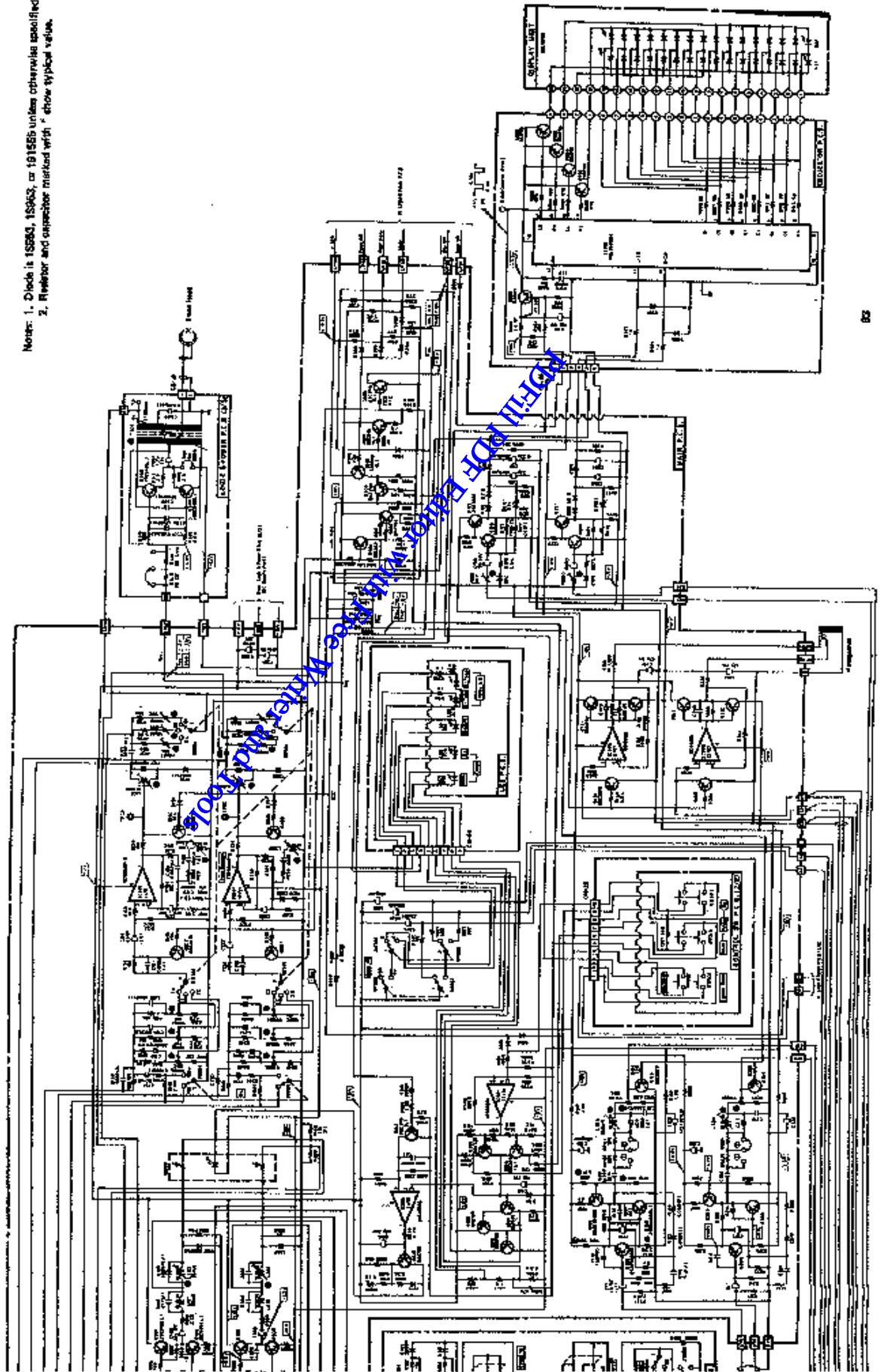
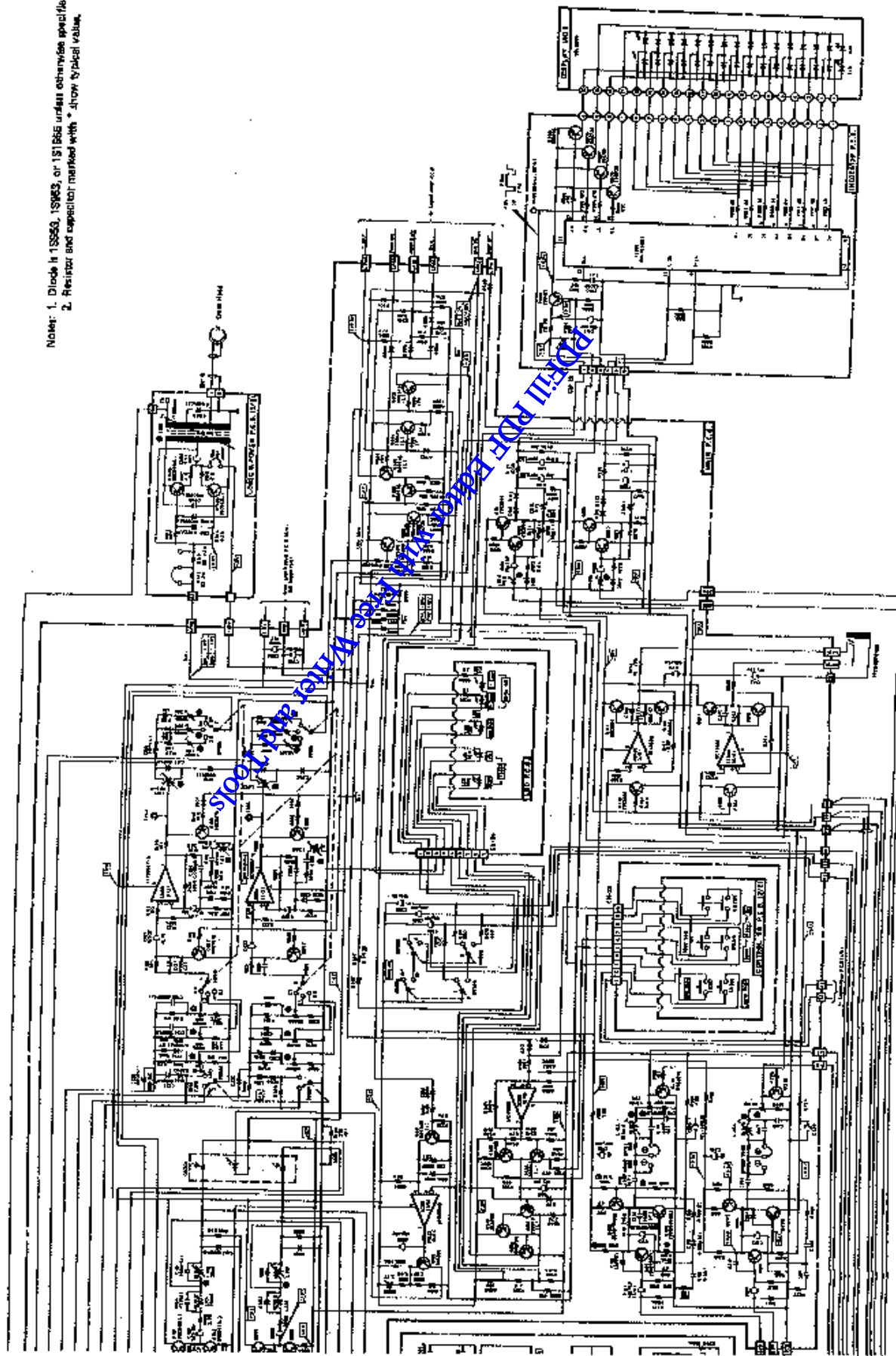


Fig. 13.2.2.1 Series No. AS13-10053 -
UK, Australia, 220V Class 2, Others & Japan

Notes: 1. Diode is 1S954, 1S963, or 1S1555 unless otherwise specified.
 2. Resistor and capacitor marked with * show typical value.



- Notes: 1. Diode 1N555, 1N563, or 1N565 unless otherwise specified.
2. Resistor and capacitor marked with * show typical value.



12.3. Attention to Servicemen
(1) Parts Replacement
Following parts shall be replaced with the specified ones.
Refer to the parts list.

(a) Power Supply Circuit
Power Transformer: T1
Power Transformer: T1

(b) Power Switch P.C.B. Assy
Power Switch: SW1
Spark Killer

(c) Logic & Power P.C.B. Assy
Fuses: F401, 402, 403
Power Transformers: Q401, 404, 408, 410, 414, 807
808, 810, 811, 821
Diode Bridges: D408, 409
Full Wave Type Rectifiers: R613, 614, 817, 818, 841
889

(d) Main P.C.B. Assy
Power Transformers: Q111, 112, 211, 212, 804
Full Wave Type Rectifiers: R183, 283

(e) Standoff P.C.B. Assy
Full Wave Type Rectifier: R608

(f) Indicator P.C.B. Assy
Power Transformer: Q406
Full Wave Type Rectifier: R620

(2) Insulation Check
Before returning the repaired LX-3 to a customer, check to insure that the exposed part is electrically insulated from the AC line by measuring the leakage current or the insulation resistance between them.

12.4. IC Block Diagram

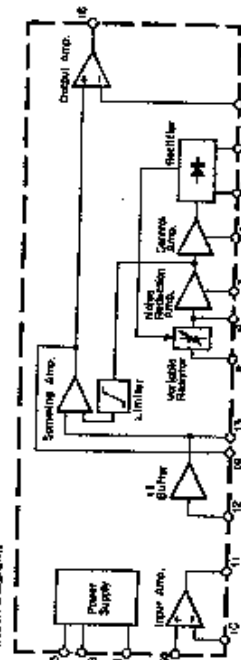


Fig. 12.3. Dolby NR IC μ A7200PC, LA2730

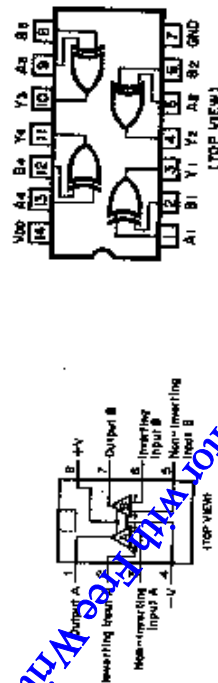


Fig. 12.4. Operational Amp. IC RC4682Z (C4688C), TA7858B-9

Fig. 12.5. Exclusive OR Gate CMOS IC μ PD40208C

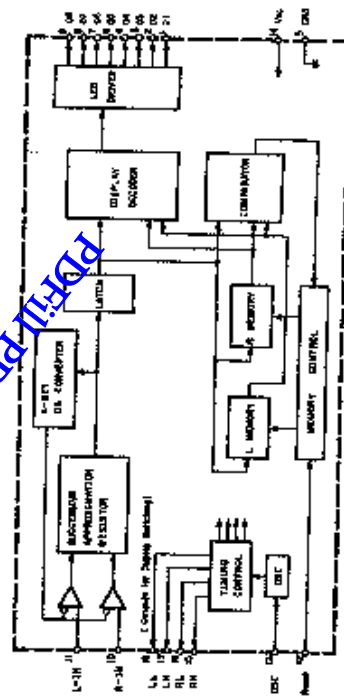
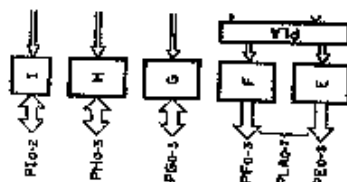


Fig. 12.6. Level Meter Control IC M610350R3



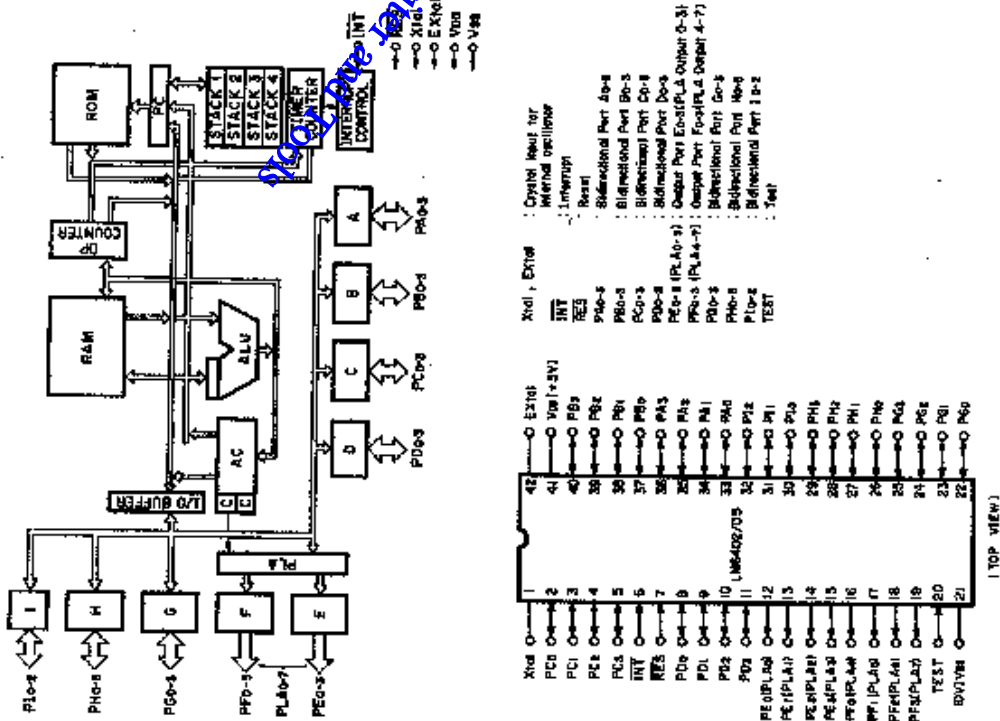


Fig. 13.7 4-bit Micro-processor LM6402A-052/048

Nakamichi LX-3

LX-3

14. SPECIFICATIONS

Track Configuration	4 Tracks/2-Channel Stereo
Heads	2 (Record/Playback Head x 1, Erase Head x 1)
Motors (Tape Transport)	DC Servo Motor (Capstan Drive) x 1 DC Motor (Reel Drive) x 1
Power Source	100, 120, 120/220-240, 220 or 240 V AC; 50/60 Hz (According to country of sale)
Power Consumption	33 W max.
Tape Speed	1-7/8 ips (4.8 cm/sec) $\pm 0.6\%$
Wow and Flutter	Less than 0.11% Wtd peak Less than 0.06% Wtd rms
Frequency Response	20 Hz-20,000 Hz (recording level -20 dB, ZX, SX, EX II Tape)
Signal to Noise Ratio	Dolby C-Type NR on <70 μ s, ZX Tape> Better than 68 dB (400 Hz, 3% THD, 1HF A-Wtd rms) Dolby B-Type NR on <70 μ s, ZX Tape> Better than 62 dB (400 Hz, 3% THD, 1HF A-Wtd rms)
Total Harmonic Distortion	Less than 1.2% (400 Hz, 0 dB, ZX, EX II Tape) Less than 1.2% (400 Hz, 0 dB, SX Tape)
Erase	Better than 60 dB (100 Hz, 0 dB)
Separation	Better than 36 dB (1 kHz, 0 dB)
Crosstalk	Better than 60 dB (1 kHz, 0 dB)
Bias Frequency	105 kHz
Input (Line)	50 mV, 70 k ohms
Output (Line)	1 V (400 Hz, 0 dB, Output Level Control at max.), 2.2 k ohms
(Headphones)	12 mW (400 Hz, 0 dB, Output Level Control at max.), 8-ohm load
Dimensions	450 (W) x 135 (H) x 307 (D) millimeters 17-3/4 (W) x 5-5/16 (H) x 12-1/16 (D) inches
Approximate Weight	8.6 kg 18 lb. 12 oz.

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